

United States
Circuit Court of Appeals
For the Ninth Circuit.

WILLIAM R. RAY and W. S. RAY MANUFACTURING COMPANY, a Corporation,
Appellants and Cross-Appellees,

vs.

BUNTING IRON WORKS, a Corporation,
Appellee and Cross-Appellant.

Transcript of Record.

Upon Appeals from the Southern Division of the United States District Court for the Northern District of California, Third Division.

FILED

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CLERK

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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In the Southern Division of the United States Dis-
trict Court for the Northern District of Cali-
fornia, Southern Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFAC-
TURING CO. (a Corporation),
Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),
Defendant.

BILL OF COMPLAINT.

For Infringement of United States Letters Patent:

1,184,659—May 23, 1916.

1,193,819—Aug. 8, 1916.

1,285,376—Nov. 19, 1918.

WILLIAM R. RAY and W. S. RAY MANU-
FACTURING CO., a Corporation, plaintiffs above,

complain of BUNTING IRON WORKS, a Corporation, defendant above named, and for cause of action allege:

I.

That the plaintiff, William R. Ray, during all the times hereinafter mentioned was and is a citizen of the United States and a resident of the City and County of San Francisco, State of California; and that the plaintiff, W. S. Ray Manufacturing Co., during all the times hereinafter mentioned was and is a corporation duly organized and existing under and by virtue of the laws of the State of California, and having its principal place of business in the City and County of San Francisco, State of California.

II.

That the defendant, Bunting Iron Works, during all the times hereinafter mentioned was and is a [1*] corporation duly organized and existing under and by virtue of the laws of the State of California, with a place of business in the City of Berkeley, County of Alameda, State of California.

III.

That the ground upon which the Court's jurisdiction depends in this case is that it is a suit in equity arising under the patent laws of the United States.

IV.

That prior to the 10th day of May, 1915, said plaintiff, William R. Ray, being the first, original and sole inventor of a certain new and useful invention entitled "Oil Burner," did upon said date

*Page-number appearing at foot of page of original Certified Transcript of Record.

duly file in the Patent Office of the United States an application for letters patent for said invention.

V.

That thereafter, to wit, on the 23d day of May, 1916, said letters patent for said invention No. 1,184,659 were granted, issued and delivered unto the said William R. Ray, plaintiff above named, in due form of law in the name of the United States of America, under the seal of the Patent Office of the United States and signed by the acting commissioner of patents of the United States, whereby there was granted to the said William R. Ray, plaintiff above named, his heirs or assigns, the sole and exclusive right to make, use and vend the said invention throughout the United States and the territories thereof for the period of seventeen (17) years from May 23d, 1916; and that prior to the issuance thereof all proceedings were had and taken which were required by law to be had and taken prior to the issuance of letters patent for new and useful [2] inventions; that a more particular description of the said invention patented in and by said letters patent will more fully appear from the said letters patent themselves, which are ready in Court to be produced by the plaintiffs and profert is hereby made thereof.

VI.

That prior to the 30th day of November, 1914, said plaintiff, William R. Ray, being the first, original and sole inventor of a certain new and useful invention entitled "Oil Burner," did upon said date

duly file in the Patent Office of the United States an application for letters patent for said invention.

VII.

That thereafter, to wit, on the 8th day of August, 1916, said letters patent for said invention No. 1,193,819 were granted, issued and delivered unto the said William R. Ray, plaintiff above named, in due form of law in the name of the United States of America, under the seal of the Patent Office of the United States and signed by the Acting Commissioner of Patents of the United States, whereby there was granted to the said William R. Ray, plaintiff above named, his heirs or assigns, the sole and exclusive right to make, use and vend the said invention throughout the United States and the territories thereof for the period of seventeen (17) years from August 8th, 1916; and that prior to the issuance thereof all proceedings were had and taken which were required by law to be had and taken prior to the issuance of letters patent for new and useful inventions; that a more particular description of the said invention patented in and by said letters patent will more fully appear from the said letters [3] themselves, which are ready in Court to be produced by the plaintiffs and profert is hereby made thereof.

VIII.

That prior to the 8th day of May, 1916, said plaintiff, William R. Ray, being the first, original and sole inventor of a certain new and useful invention entitled "Oil Burner," did upon said date duly

file in the Patent Office of the United States an application for letters patent for said invention.

IX.

That thereafter, to wit, on the 19th day of November, 1918, said letters patent for said invention No. 1,285,376 were granted, issued and delivered unto the said William R. Ray, plaintiff above named, in due form of law in the name of the United States of America, under the seal of the Patent Office of the United States and signed by the Acting Commissioner of Patents of the United States, whereby there was granted to the said William R. Ray, plaintiff above named, his heirs or assigns, the sole and exclusive right to make, use and vend the said invention throughout the United States and the territories thereof for the period of seventeen (17) years from November 19th, 1918; and that prior to the issuance thereof all proceedings were had and taken which were required by law to be had and taken prior to the issuance of letters patent for new and useful inventions; that a more particular description of the said invention patented in and by said letters patent will more fully appear from the said letters patent themselves, which are ready in court to be produced by the plaintiffs and profert is hereby made thereof.

X.

That the said several inventions covered by the said three letters patent are capable of conjoint use in one and the [4] same apparatus.

XI.

That ever since the issuance of said letters patent,

and each of them, the said William R. Ray, plaintiff above named, has been and is still the sole owner and holder thereof and of each of them, and of all the rights and liberties thereby granted, save and except that he has granted a license to the plaintiff corporation, W. S. Ray Manufacturing Co., to use the said inventions, and each of them, upon the payment of a specified royalty; the said plaintiff corporation, W. S. Ray Manufacturing Co., being the exclusive licensee of the said William R. Ray, plaintiff above named, under said several letters patent, and each of them, in and throughout the territory wherein the infringements hereinafter complained of have taken place.

XII.

That said patented inventions are of great practical utility and benefit and that plaintiffs have, since and before the issuance of said letters patent, and each of them, and to this time manufactured and sold upon the open market the said patented Rotary Oil Burners described and claimed in the said letters patent, and each of them; that they have invested large sums of money in the equipment of a patent for such manufacture and in advertising and otherwise bringing their said Burners to the favorable attention of the public and of prospective buyers and users; and that they have built up a large, lucrative and expanding business, based on the special type and construction of Rotary Oil Burner covered and claimed in said letters patent, and each of them, in suit; and except for the infringements hereinafter complained of the public

has [5] in general acquiesced in the validity of said letters patent, and each of them.

XIII.

That since the issuance of said letters patent, and each of them, plaintiffs have given notice to the public that the said Oil Burners were and are patented by affixing the word "Patented," together with the day and year in which the said several letters patent, and each of them, were granted, to or in connection with the fabricated articles.

XIV.

That within six (6) years last past and since the issuance of the said several letters patent and within the Northern District of California and in the Southern Division thereof, and before the commencement of this suit, this defendant and its predecessor in interest, American Standard Oil Burner Company, has made and sold Oil Burners without the license or consent of the plaintiffs, or either of them, containing and embracing the invention described in said letters patent No. 1,184,659 and claimed and patented in and by the claims of said letters patent, and each of them; and also containing and embracing the invention described in said letters patent No. 1,193,819 and claimed and patented in and by the claims of said letters patent, and each of them; and also containing and embracing the invention described in said letters patent No. 1,285,376 and claimed and patented in and by the claims of said letters patent and each of them; and has infringed upon the said letters patent and the claims of each and all of them; and defendant is

threatening to continue the unlawful use of the aforesaid patented inventions, and which practice, manufacture and use constitute an infringement of each [6] and all of the claims of each of said letters patent; and that by reason of the said infringement as aforesaid defendant has, as your plaintiffs are informed and believe and so state the fact to be, realized large profits and plaintiffs have suffered large damages, the amounts of such profits and damages being unknown to plaintiffs and can be ascertained only by an accounting, but which profits and damages plaintiffs aver, on information and belief, aggregate in excess of One Hundred Thousand (\$100,000.00) Dollars and rightfully belong to plaintiffs, and of which no part has been paid to plaintiffs or either of them.

XV.

That plaintiffs have requested defendant to cease and desist from said infringement of said letters patent, and each of them, and to account to plaintiffs for the profits and damages aforesaid, but defendant has failed and refused to comply with said request or any part thereof.

WHEREFORE, plaintiffs pray a decree of this Court against the defendant as follows:

First: That upon the filing of this bill of complaint a preliminary injunction be granted enjoining and restraining the defendant, its agents, servants, attorneys and employees, *pendente lite*, from making, using or selling any article which infringes upon said letters patent, or any of them, or from

practicing the patented inventions, or any of them, in violation of plaintiffs' rights aforesaid.

Second: That upon the final hearing defendant, its servants, agents, attorneys and employees, and each of them, [7] be permanently and finally enjoined and restrained from making, using or selling any article, machine or apparatus which infringes upon said letters patent No. 1,184,659, No. 1,193,819 and No. 1,285,376, or any of them, and that a writ of injunction be issued out of and under the seal of this Court, enjoining the said defendant, its agents, servants, attorneys and employees as aforesaid.

Third: That plaintiffs have and recover from the defendant the profits realized by the defendant and the damages sustained by the plaintiffs from and by reason of the infringement aforesaid, together with costs of suit, and such other and further relief as to the Court may seem proper and in accordance with equity and good conscience.

WILLIAM R. RAY and

W. S. RAY MANUFACTURING CO.,

Plaintiffs.

By CHAS. E. TOWNSEND,

Attorney for Plaintiffs.

WM. A. LOFTUS,

Of Counsel. [8]

United States of America,
Northern District of California,
City and County of San Francisco,—ss.

William R. Ray, being duly sworn, deposes and says that he is one of the plaintiffs in the within-

entitled action; that he has read the foregoing bill of complaint, and knows the contents thereof; that the same is true of his own knowledge except as to the matters which are therein stated on his information or belief, and as to those matters, that he believes them to be true.

WILLIAM R. RAY.

Subscribed and sworn to before me this 6th day of February, 1922.

[Seal] W. W. HEALEY,
Notary Public in and for the City and County of
San Francisco, State of California.

[Endorsed]: Filed Feb. 7, 1922. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [9]

In the Southern Division of the United States District Court in and for the Northern District of California, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),
Plaintiff,

vs.

BUNTING IRON WORKS (a Corporation),
Defendant.

ANSWER AND COUNTERCLAIM.

Now comes Bunting Iron Works, the above-named defendant, and, answering the bill of complaint

herein of the above-named plaintiffs, admits, denies and alleges as follows:

1. Answering paragraph 1 of said bill of complaint, defendant alleges it is without knowledge of the several allegations in said paragraph and therefore leaves plaintiffs to make such proof thereof as they deem advisable.

2. Answering paragraph 2 of said bill, defendant admits the several allegations therein.

3. Answering paragraph 3 of said bill, defendant admits this is a suit arising under letters patent of the United States but denies any letters patent of the United States have been infringed by defendant at any time or place.

4. Answering paragraph 4 of said bill, defendant denies that prior to the 10th day of May, 1915, or at any other time, or at all, plaintiff, William R. Ray, was the first, or original or sole or any inventor of a certain alleged new or useful invention entitled "Oil Burner" and denies that upon said date or upon any other date he did duly, or otherwise, file in the Patent Office of the United States an application for letters patent for said alleged invention.
[10]

5. Answering paragraph 5 of said bill, defendant denies that thereafter, or on the 23d day of May, 1916, or on any other date, letters patent for said alleged invention No. 1,184,659, or any other number, were granted, or issued or delivered unto the said William R. Ray, in due form of law or in the name of the United States of America, or under the seal of the Patent Office of the United States or

signed by the Acting Commissioner of Patents of the United States, or otherwise or at all, and denies that thereby, or otherwise, there was granted to the said William R. Ray, his heirs or assigns, the sole or exclusive or any right to make, use or vend the said alleged invention throughout the United States or the territories thereof, or any part thereof, or for the period of seventeen years from May 23, 1916, or for any other period; and denies that prior to the alleged issuance thereof all or any proceedings were had or taken which were required by law to be had or taken prior to the issuance of letters patent for new and useful inventions; denies that a more particular or any description of the said alleged invention alleged to be patented in and by said alleged letters patent will more fully or at all appear from the said alleged letters patent which are alleged to be ready in Court to be produced by the plaintiffs and of which profert is made.

6. Answering paragraph 6 of said bill, defendant denies that prior to the 30th day of November, 1914, or at any other time, or at all, plaintiff, William R. Ray was the first or original or sole or any inventor of a certain alleged new or useful invention entitled "Oil Burner" and denies that upon said date or upon any other date he did duly, or otherwise, file in the Patent Office of the United States an application for letters patent for said alleged invention. [11]

7. Answering paragraph 7 of said bill, defendant denies that thereafter, or on the 8th day of August 1916, or on any other date, letters patent for said

alleged invention No. 1193819 or any other number, were granted, or issued or delivered unto the said William R. Ray, in due form of law or in the name of the United States of America, or under the seal of the Patent Office of the United States or signed by the Acting Commissioner of Patents of the United States, or otherwise or at all, and denies that thereby, or otherwise, there was granted to the said William R. Ray, his heirs, or assigns, the sole or exclusive or any right to make, use or vend the said alleged invention throughout the United States or the territories thereof, or any part thereof, or for the period of seventeen years from August 8, 1916, or for any other period; and denies that prior to the alleged issuance thereof all or any proceedings were had or taken which were required by law to be had or taken prior to the issuance of letters patent for new and useful inventions; denies that a more particular or any description of the said alleged invention alleged to be patented in and by said alleged letters patent will more fully or at all appear from the said alleged letters patent which are alleged to be ready in court to be produced by the plaintiffs and of which profert is made.

8. Answering paragraph 8 of said bill, defendant denies that prior to the 8th day of May, 1916, or at any other time, or at all, plaintiff, William R. Ray, was the first or original or sole or any inventor of a certain alleged new or useful invention entitled "Oil Burner" and denies that upon said date or upon any other date he did duly, or otherwise, file

in the Patent Office of the United States an application for letters patent for said alleged invention.

9. Answering paragraph 9 of said bill, defendant denies that thereafter, or on the 19th day of November 1918, or on [12] any other date, letters patent for said alleged invention No. 1285376, or any other number, were granted, or issued or delivered unto the said William R. Ray, in due form of law or in the name of the United States of America, or under the seal of the Patent Office of the United States or signed by the Acting Commissioner of Patents of the United States, or otherwise or at all, and denies that thereby, or otherwise, there was granted to the said William R. Ray, his heirs or assigns, the sole or exclusive or any right to make, use or vend the said alleged invention throughout the United States or the territories thereof, or any part thereof, or for the period of seventeen years from November 19, 1918, or for any other period; and denies that prior to the alleged issuance thereof all or any proceedings were had or taken which were required by law to be had or taken prior to the issuance of letters patent for new and useful inventions; denies that a more particular or any description of the said alleged invention alleged to be patented in and by said alleged letters patent will more fully or at all appear from the said alleged letters patent which are alleged to be ready in court to be produced by the plaintiffs and of which profert is made.

10. Answering paragraph 10 of said bill, defendant denies said several alleged inventions alleged to be covered by the said alleged letters patent are

capable of conjoint or any use in one or the same apparatus or in any apparatus or thing.

11. Answering paragraph 11 of said bill, defendant denies that ever since the issuance of said alleged letters patent and/or each of them, or at any other time or at all, the said William R. Ray has been or is still the sole or any owner thereof or of each or of any of them or of all or of any of the alleged rights or liberties alleged to be thereby granted and denies that he has granted a license to the plaintiff corporation, W. S. Ray Mfg. Co., to use the said alleged inventions, or any of them, upon [13] the payment of a specified royalty, or otherwise or at all; and denies that the said W. S. Ray Manufacturing Co. is the exclusive or any licensee of the said William R. Ray under the said several alleged letters patent or under any of them, in or throughout the territory wherein the alleged infringements thereafter complained of are alleged to have taken place, or elsewhere.

12. Answering paragraph 12 of said bill, defendant denies that said alleged patented inventions are, or any of them is of great practical utility, or of any utility, or of any benefit or that plaintiffs, or either of them, since or before the alleged issuance of said alleged letters patent, or each of them, or at this time, or at any other time, or at all, have or has manufactured or sold upon the open market, or otherwise, the said alleged patented Rotary Oil Burners, or any of them, alleged to be described and claimed in the said alleged letters patent, or in any of them; denies that plaintiffs have, or either of

them has, invested large or any sums of money in the equipment of a plant for such alleged manufacture or in advertising or otherwise bringing their said alleged Burners to the favorable or other attention of the public or of prospective buyers or users, or otherwise or at all; and denies that plaintiffs have, or either of them has, built up a large, lucrative, expanding or any business alleged to be based on the alleged special type or construction of Rotary Oil Burner alleged to be covered or claimed in said alleged letters patent, or in each or any of them; and denies that except for the alleged infringements complained of, or otherwise, the public in general, or any one, acquiesced in the validity of said alleged letters patent or of any of them.

13. Answering paragraph 13 of said bill, defendant denies that, since the alleged issuance of said alleged letters patent, or of each or of any of them, plaintiffs have, or [14] either plaintiff has, given notice to the public that the said alleged Oil Burners were or are patented by affixing the word "Patented" together with the alleged day and year in which it is alleged said several alleged letters patent, and/or each of them, were granted, to or in connection with the alleged fabricated articles, or otherwise or at all.

14. Answering paragraph 15 of said bill, defendant denies that within six years last past or since the alleged issuance of said several alleged letters patent, or at any other time, or within the Northern District of California, or in the Southern Division thereof, or elsewhere, or before the commencement

of this suit, or at any time or place or otherwise, this defendant, or its alleged predecessor in interest, American Standard Oil Burner Company, has made or sold Oil Burners, or any other thing, without the license or consent of the plaintiffs, or of either of them, containing or embracing the alleged invention alleged to be described in said alleged letters patent No. 1184659, or claimed or patented in or by the alleged claims of said alleged letters patent, or each or any of them; or containing or embracing the alleged invention alleged to be described in said alleged letters patent No. 1193819 or claimed or patented in or by the alleged claims of said alleged letters patent, or each or any of them; or containing or embracing the alleged invention alleged to be described in said alleged letters patent No. 1285376 or claimed or patented in or by the alleged claims of said alleged letters patent, or each or any of them; or has infringed upon the said alleged letters patent, or any of them, or upon the claims, or any of them, of each or of all or of any of them; or that defendant is threatening to continue the alleged unlawful or any use of the aforesaid alleged patented inventions, or any of them, and denies that any practice, manufacture or use by defendant constitutes [15] an infringement of each or of all or of any of the alleged claims of each or of any of said alleged letters patent; denies that by reason of said alleged infringement or of any wrongful act, defendant has realized large or any profits or that plaintiffs have, or either plaintiff has, suffered large or any damages and denies that any such prof-

its and damages aggregate in excess of One Hundred Thousand Dollars, or any other sum or amount to anything at all; and, in that regard, defendant alleges it has not infringed said alleged letters patent, or any of them, or any claim or claims therein, at any time or place and has not made, used or sold anything, at any time or place, embracing or embodying anything alleged to be patented in or by said alleged letters patent, or any of them, and that plaintiffs have not, and neither plaintiff has, at any time or place, suffered any damage and defendant has not at any time, realized any profit by reason of any alleged infringement by defendant.

15. Answering paragraph 15 of said bill, defendant denies plaintiffs have, or either of them has, requested defendant to cease or desist from any alleged infringement of said alleged letters patent, or any of them, or to account to plaintiffs, or to either of them, for the said alleged profits or damages and, in that regard, defendant alleges it has not infringed said letters patent, or any of them, at any time or place.

16. And for a further and separate defense, defendant alleges that, by reason of the state of the prior art existing at the time of said alleged invention by said William R. Ray of the thing alleged to be described and patented in and by said alleged letters patent No. 1184659, the said thing was not an invention and did not require an exercise of the inventive faculties for its production and was not patentable, for which reason said alleged letters

patent No. 1184659 are null, void and of no effect.
[16]

17. And for a further and separate defense, defendant alleges that, by reason of the state of the prior art existing at the time of said alleged invention by said William R. Ray of the thing alleged to be described and patented in and by said alleged letters patent No. 1193819, the said thing was not an invention and did not require an exercise of the inventive faculties for its production and was not patentable, for which reason said alleged letters patent No. 1193819 are null, void and of no effect.

18. And for a further and separate defense, defendant alleges that, by reason of the state of the prior art existing at the time of said alleged invention by said William R. Ray of the thing alleged to be described and patented in and by said alleged letters patent No. 1285376, the said thing was not an invention and did not require an exercise of the inventive faculties for its production and was not patentable, for which reason said alleged letters patent No. 1285376 are null, void and of no effect.

19. For a further and separate defense, defendant alleges that the said William R. Ray was not the original or first or sole or any inventor or discoverer of the alleged invention alleged to be patented in and by said letters patent No. 1193819 or of any material or substantial part thereof, but, long prior to the alleged invention thereof by the said Ray and more than two years prior to the filing of the application for said letters patent, the said alleged invention, and every material and substantial part there-

of, had been shown, described and patented in and by each of the following letters patent of the United States of America and had been invented by each of the patentees named in each of said letters patent and each of said patentees was the first and original inventor thereof and, at all times, was using reasonable diligence in adapting and perfecting [17] the same, and the respective places of residence of said patentees are respectively set forth in said letters patent, to wit:

Patent No.	Patent Date.	Patentees
73,506	January 21, 1868	F. Cook.
100,268	March 1, 1870	A. DeLandsee.
473,759	April 26, 1892	J. S. Klein.
540,650	June 11, 1895	A. H. Eddy.
540,651	June 11, 1895	A. H. Eddy.
548,647	October 29, 1895	C. P. Mack.
752,900	February 23, 1904	W. E. Gibbs.
1,009,525	November 21, 1911	S. T. Johnson.
1,022,122	April 2, 1912	W. M. Britten.
1,026,663	May 21, 1912	M. A. Fessler.
1,085,334	January 27, 1914	W. Gordin.
1,095,447	May 5, 1914	J. H. Becker.
1,101,779	June 30, 1914	J. H. Becker.
1,102,387	July 7, 1914	W. M. Britten.
1,113,108	October 6, 1914	M. A. Fessler.
1,158,058	October 26, 1915	J. H. King.
764,718	July 12, 1904	G. Gordejoff.
668,236	February 19, 1901	G. C. Thorm.
426,713	April 29, 1890	C. M. Collins.
563,483	July 7, 1896	R. Hammann & J. Voegeli.
799,560	September 12, 1905	R. W. Hammann.

Patent No.	Patent Date.	Patentees.
530,539	December 11, 1894	S. G. Leyson.
315,145	April 7, 1885	A. T. Kinney.
719,716	February 3, 1903	J. W. Anderson.
1,157,964	October 26, 1915	W. E. Shore.

20. For a further and separate defense, defendant alleges that the said William R. Ray was not the original or first or sole or any inventor or discoverer of the alleged invention [18] alleged to be patented in and by said letters patent No. 1,184,659, or of any material or substantial part thereof, but, long prior to the alleged invention thereof by the said Ray and more than two years prior to the filing of the application for said letters patent, the said alleged invention, and every material and substantial part thereof, had been shown, described and patented in and by each of the following letters patent of the United States of America and had been invented by each of the patentees named in each of said letters patent and each of said patentees was the first and original inventor thereof and, at all times, was using reasonable diligence in adapting and perfecting the same, and the respective places of residence of said patentees are respectively set forth in said letters patent, to wit: the said several United States letters patent specified and identified in paragraph 19 of this answer.

21. For a further and separate defense, defendant alleges that the said William R. Ray was not the original or first or sole or any inventor or discoverer of the alleged invention alleged to be patented in and by said letters patent No. 1,285,376, or of any mater-

ial or substantial part thereof, but, long prior to the alleged invention thereof by the said Ray and more than two years prior to the filing of the application for said letters patent, the said alleged invention, and every material and substantial part thereof, had been shown, described and patented in and by each of the following letters patent of the United States of America and had been invented by each of the patentees named in each of said letters patent and each of said patentees was the first and original inventor thereof and, at all times, was using reasonable diligence in adapting and perfecting the same, and the respective places of residence of said patentees are respectively set forth in said letters patent, to wit: the said several United States letters patent specified and identified in paragraph 19 of this answer. [19]

22. For a further and separate defense, defendant alleges that the said William R. Ray surreptitiously and unjustly obtained said several letters patent Nos. 1,193,819; 1,184,659 and 1,285,376 for that which, in fact, was first invented by another, to wit: Joseph H. King, who resided and now resides in Oakland, Alameda County, State of California, and who at all times was using reasonable diligence in adapting and perfecting the same and the said Joseph H. King was the original and first inventor of the respective inventions and subjects matter respectively claimed and disclosed in said three letters patent and of each of them and of every material and substantial part thereof.

23. For a further and separate defense, defend-

ant alleges that the said Wiliam R. Ray surreptitiously and unjustly obtained said several letters patent Nos. 1,193,819; 1,184,659 and 1,285,376 for that which, in fact, was first jointly invented by others, to wit: Joseph H. King, who resided and now resides in said city of Oakland, and Julius Becker who resided and now resides in San Francisco, California, who, at all times, were using reasonable diligence in adapting and perfecting the same, and the said Joseph H. King and Julius Becker were the original and first inventors of the respective inventions and subjects matter respectively claimed and disclosed in said three letters patent and of each of them and of every material part thereof.

24. For a further and separate defense, defendant alleges that more than two years prior to the filing of the respective applications for said three letters patent Nos. 1,193,819; 1,184,659 and 1,285,376, and prior to the alleged invention by said Ray of the respective inventions respectively claimed therein, or any of them, each and all said alleged inventions had been in public use and each and all of same had been publicly used and had been on public sale and sold in the city of Oakland [20] and in the county of Alameda, State of California, by American Heat & Power Company, a corporation organized and existing under and by virtue of the laws of the state of California and by the American Standard Oil Burner Co., a like corporation.

25. For a further and separate defense, defendant alleges that the devices made and sold by it and

herein charged to be an infringement of plaintiffs' said three letters patent, have been for many years last past made and sold by defendant and by its predecessor in interest, said American Standard Oil Burner Company and by said latter company's predecessor in interest, said American Heat & Power Company, that the said manufacture and sale of said devices was, at all such times, known to the plaintiffs and to each of them but, prior to the commencement of this suit, plaintiffs, and neither of them, ever notified defendant, or either of its said predecessors in interest, that said devices, or any of them, were claimed by plaintiffs, or by either of them, to be an infringement of any letters patent owned by plaintiffs, or by either of them, but plaintiffs, and both of them, at all said times, with full knowledge of said manufacture and sale of said devices, remained silent and failed to assert their rights, if any, under said three letters patent sued on herein, or under any of them, and, by reason of plaintiffs' said silence and failure to claim said devices, or any of them, infringed plaintiff's patents, or any of them, and in reliance thereupon, defendant and its said predecessors in interest, manufactured and sold said devices and expended many thousands of dollars in building up a business in the manufacture and sale of said devices, all without protest from or the assertion of any alleged claims or rights by plaintiffs, or either of them, wherefore defendant charges and alleges plaintiffs are, and each of them is, estopped from asserting or maintaining herein the alleged infringement of said let-

ters patent [21] or any of them, sued on herein and, by reason of the said facts, plaintiffs have, and each of them has, been guilty of laches in asserting any such alleged rights and in alleging infringement of said letters patent, or any of them, sued on herein.

SET-OFF, COUNTERCLAIM AND CROSS-COMPLAINT.

And for a further and separate defense and by way of set-off and counterclaim and cross-complaint against plaintiffs and praying for affirmative relief, defendant alleges as follows:

26. That the respective full names of the plaintiffs are William R. Ray and W. S. Ray Manufacturing Co., and, at all the times hereinafter mentioned, said William R. Ray was and is a resident of the City and County of San Francisco, State of California and a citizen of said State and said W. S. Ray Manufacturing Co., was and is a corporation organized and existing under the laws of said State and having its principal place of business in the said City and County of San Francisco; that the full name of defendant is Bunting Iron Works and, at all said times, said defendant was and is a corporation organized and existing under and by virtue of the laws of said State and having its principal place of business in the City of Berkeley, Alameda County, State of California.

27. That the ground upon which the court's jurisdiction, on this counterclaim, set-off and cross-complaint, depends is that the same is a cause of

action arising under the patent laws of the United States.

28. That heretofore, to wit, prior to March 23, 1914, one, Joseph H. King, a citizen of the United States and a resident of the city of Oakland, Alameda County, in said State, was the first, original and sole inventor of a new and useful invention entitled "Centrifugal Burner," and, on said 23d day of March, 1914, the said King filed in the Patent Office [22] of the United States an application for letters patent for his said invention.

29. That thereafter and before the issuance of any letters patent upon said application, the said invention, application and any letters patent issued thereon, were, by mesne assignments in writing, duly executed and delivered, assigned, transferred and conveyed by the said King to American Standard Oil Burner Company, a corporation then organized and existing under the laws of the State of California and having its principal place of business in said city of Oakland.

30. That thereafter such proceedings were duly and regularly had and taken in respect to such application; that, on October 26, 1915, letters patent of the United States for the said invention, dated on said day and numbered 1,158,058 were issued and delivered by the Government of the United States to said American Standard Oil Burner Company, whereby there was granted unto to it, its successors and assigns, for the term of seventeen years from the said 26th day of October, 1915, the exclusive right to make, use and sell the said invention, and

devices embracing the same, throughout the United States of America and the territories thereof; and a more particular description of said invention, patented in and by said letters patent No. 1,158,058, will fully appear from the said letters patent themselves which are ready in court to be produced by defendant and of which profert is hereby made.

31. That after the issuance of said letters patent and prior hereto, the said letters patent No. 1,158,058 together with all claims, demands and causes of action for the past infringement thereof, were, by an instrument in writing duly signed and executed, assigned, transferred and conveyed, by said American Standard Oil Burner Company and the then owner of said letters patent, to defendant, Bunting Iron Works and [23] ever since such assignment to it, said Bunting Iron Works has been and now is the sole and exclusive owner of said letters patent No. 1,158,058 and of all said claims, demands, and causes of action for the past infringement thereof.

32. That within six years last past and prior to the filing of this suit, in the Southern Division of the Northern District of California and elsewhere, without the license or consent of said American Standard Oil Burner Company or defendant, Bunting Iron Works, the plaintiffs herein, William R. Ray and W. S. Ray Manufacturing Co., jointly made and sold devices embodying the said invention patented in and by said letters patent No. 1,158,058 and jointly infringed said letters patent No. 1,158,058, and each and all the claims thereof.

33. That by reason of said infringement, said American Standard Oil Burner Company and this defendant, Bunting Iron Works, suffered damages and plaintiffs, William R. Ray and W. S. Ray Manufacturing Company, realized profits, but the exact amounts of said damages and profits are unknown to defendant, Bunting Iron Works, and can be ascertained only by an accounting.

34. That said American Standard Oil Burner Company heretofore requested said plaintiffs to cease and desist from the further infringement of said letters patent and to account to it for the said damages and profits, but said plaintiffs failed and refused to comply with such request, or any part thereof.

35. That said plaintiffs, William R. Ray and W. S. Ray Manufacturing Company are now continuing to infringe said letters patent No. 1,158,058 and each and all the claims thereof, and threaten to continue such infringement, and, unless restrained by this Honorable Court, will continue to infringe the same, whereby defendant, Bunting Iron Works, will suffer [24] great and irreparable injury and damage for which it has no plain, speedy or adequate remedy at law.

WHEREFORE, defendant, Bunting Iron Works prays:

1. That plaintiffs take nothing by this suit and their bill of complaint herein be dismissed and costs awarded to defendant.

2. That a final decree be made and entered herein in favor of defendant and against plaintiffs, per-

petually enjoining the said plaintiffs, William R. Ray and W. S. Ray Manufacturing Company, their respective agents, officers, servants, workmen, attorneys, and employees, and each of them, from making, using or selling any device embodying or containing the invention patented in and by said letters patent No. 1,158,058 or any of the claims thereof and from infringing said letters patent directly or indirectly.

3. That upon the filing of this counterclaim and cross-complaint, preliminary injunction be granted enjoining said plaintiffs as herein prayed in respect to said final decree.

4. That defendant have and recover from said plaintiffs, the profits realized by them and the damages suffered by said American Standard Oil Burner Company and by defendant from and by reason of plaintiff's said infringement of said letters patent together with costs of suit and such other and further relief as to the Court may seem proper and in accordance with equity and good conscience.

BUNTING IRON WORKS.

By WM. K. WHITE,

Its Attorney.

WM. K. WHITE,

Solicitor for Defendant.

WM. K. WHITE,

Solicitor and Counsel for Bunting Iron
Works. [25]

Service of the within Answer and counterclaim admitted this 27th day of April, A. D. 1922.

CHAS. E. TOWNSEND,
For Plaintiffs.

[Endorsed]: Filed Apr. 28, 1922. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [26]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),
Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),
Defendant.

ANSWER TO COUNTERCLAIM.

Now come plaintiffs, William R. Ray and W. S. Ray Manufacturing Company, and answering the defendant's alleged set-off, counterclaim and cross-complaint contained in defendant's answer herein, admit, deny and allege as follows:

1. Answering paragraph 26 of said cross-complaint, plaintiffs admit the several allegations therein.

2. Answering paragraph 27 of said cross-complaint, plaintiffs admit that this court has juris-

diction of causes of action arising under the patent laws of the United States, but deny that that defendant has any cause of action against plaintiffs arising under the patent laws of the United States, or under any laws whatever.

3. Answering paragraph 28 of said cross-complaint, plaintiffs admit that one, Joseph H. King, did on the 23d day of March 1914, file in the Patent Office of the United States an application for letters patent for an alleged new and useful invention entitled "Centrifugal Burner," but plaintiffs not being advised, save by the allegations of said paragraph, as to the truth of the remaining allegations therein, deny the same and call upon the defendant for full proof thereof. [27]

4. Answering paragraph 29 of said cross-complaint, plaintiffs are not advised, save by the allegations of said paragraph, as to the truth thereof, and therefore deny the same, and each and every allegation thereof, and call upon defendant for full proof thereof.

5. Answering paragraph 30 of said cross-complaint, plaintiffs admit that United States letters patent No. 1,158,058 were on the 26th day of October, 1915, issued to American Standard Oil Burner Company, of Oakland, California, but not being advised, save by the allegations of said paragraph as to the truth of the remaining allegations therein, deny the same and call upon the defendant for full proof thereof.

6. Answering paragraph 31 of said cross-complaint, plaintiffs are not informed save by the allegations of said paragraph of the truth of the alle-

gations thereof and therefore deny the same and call upon the defendant for full proof thereof.

7. Answering paragraph 32 of said cross-complaint, plaintiffs deny that within the six years last past and prior to the filing of this suit, or at any other time, or at all, or within the Southern Division of the Northern District of California, or elsewhere, without the license or consent of the American Standard Oil Burner Company, or the defendant herein, the W. S. Ray Manufacturing Company and William R. Ray, or either of them, jointly and/or separately made and/or sold devices containing or embodying the said alleged invention alleged to be described in said alleged letters patent No. 1,158,058, or claimed or patented in or by the alleged claims of said alleged letters patent No. 1,158,058, or each or any of said claims. [28]

8. Answering paragraph 33 of said cross-complaint, plaintiffs deny that by reason of said alleged infringement or of any wrongful act of plaintiffs, or either of them, the defendant has suffered damages; and deny that because of said alleged infringements or of any wrongful act by plaintiffs or either of them, they, the plaintiffs, have realized profits; plaintiffs admit that the exact amount of damages, or wrongfully acquired profits, are unknown, but deny that the exact amount or any amount can be ascertained by an accounting or otherwise.

9. Answering paragraph 34 of said cross-complaint, plaintiffs deny that they have, or either of them has, ever disregarded any notice of infringement of defendant's rights under said letters patent

number 1,158,058, or that they have, or either of them has, refused to account to said defendant for any damages or profit to which defendant is entitled.

10. Answering paragraph 35 of said cross-complaint, plaintiffs deny that they are, or either of them is, now continuing to infringe said letters patent No. 1,158,058, or each or all or any of the claims thereof, or that they or either of them threaten to continue such alleged infringement, or that they, or either of them, will continue to infringe the same, or that they, or either of them, contemplate any future infringements thereof; and deny further that defendant will suffer any great or irreparable, or any, injury and/or damage for which it has no plain, adequate and complete remedy at law.

11. Without waiving any of the matters and things above set forth, but repeating and insisting thereupon, plaintiffs further answering say that the devices which the plaintiffs are manufacturing and have for a long time been manufacturing, and which are the devices presumably complained [29] of, operate on an entirely different principle and have an entirely different mode of operation from the alleged patented devices of the defendant; that plaintiffs' devices are patented under valid United States letters patent and that said plaintiffs' devices, and none of them, are in anywise in infringement of defendant's said patent, or any rights thereunder.

12. And as a further and separate defense to said alleged set off, counterclaim and cross-com-

plaint, plaintiffs allege that the devices made and sold by them and charged by said set off, counterclaim and cross-complaint to be an infringement of defendant's said letters patent No. 1,158,058, have been for many years last past made and sold by plaintiffs herein, and each of them, and that said manufacture and sale of said devices was at all such times open and notorious, and well known to the defendant herein and to its predecessors in interest; and more particularly that prior to the 20th day of December, 1915, the plaintiff corporation herein, W. S. Ray Manufacturing Co., was engaged in manufacturing and selling, in the city and county of San Francisco, State of California, and elsewhere, Rotary Crude Oil Burners of the character and type identical in principle with the devices charged by said cross-complaint to infringe defendant's said patent No. 1,158,058; and that W. S. Ray Manufacturing Co. had given to said burners the trade name of "Ray Rotary Crude Oil Burners"; that at said time this plaintiff corporation, W. S. Ray Manufacturing Co., owned, maintained and operated at San Francisco, California, a factory and machine shop where said Ray Rotary Crude Oil Burners were manufactured, and prior to said 20th day of December, 1915, had been manufacturing and selling said Ray Rotary Crude Oil Burners [30] for a considerable period of time, all with the full knowledge of the American Standard Oil Burner Company, the predecessor in interest of the defendant herein; that notwithstanding the fact that the said Ray Rotary Crude Oil Burners that this plaintiff corporation, W. S. Ray

Manufacturing Co., were different in principle, construction, and mode of operation from the device shown, described and claimed in said King Patent No. 1,158,058 of this defendant, the said American Standard Oil Burner Company, defendant's predecessor in interest, did on the 20th day of December, 1915, file suit in this court, without just or any cause, against the said W. S. Ray Manufacturing Co., plaintiff corporation herein, being suit in equity No. 239, alleging the infringement of said letters patent to King No. 1,158,058, but that the said suit was voluntarily dismissed by said American Standard Oil Burner Company on the 26th day of May, 1919; that prior to said dismissal the said American Standard Oil Burner Company, by its officers, engineers and representatives, so plaintiffs are informed and believe and so state the fact to be, personally and critically examined the plaintiffs' said Ray Rotary Crude Oil Burners such as are here claimed to be infringements for the purpose of ascertaining if said Ray Rotary Crude Oil Burners were actual infringements of said King Patent No. 1,158,058; that said American Standard Oil Burner Company at the time of dismissing said suit knew of the growing and expanding business of these plaintiffs in said Ray Rotary Crude Oil Burners but never during all the intervening years following the dismissal of said suit on the 26th day of May, 1919, until the filing of the present answer of this defendant, did the American Standard Oil Burner Company or its successors in interest, the Bunting Iron Works, present [30½] defendant, ever intimate by word

or deed that they, or either of them, considered the Ray Rotary Crude Oil Burner an infringement of the said King patent No. 1,158,058, or of any other patent owned by defendant or its predecessor in interest, American Standard Oil Burner Company; that the officers of the said American Standard Oil Burner Company, predecessor in interest of the defendant, both before and after the dismissal of said suit expressed to these plaintiffs on more than one occasion that said suit against this plaintiff corporation, W. S. Ray Manufacturing Co., had been brought against their wishes and judgment and that they had been instigated to bring suit by one who was no longer at that time in their employ, and following the latter's disconnection from the American Standard Oil Burner Company said suit had been dismissed; that following the dismissal of said suit and the aforesaid facts and occurrences plaintiffs continued the manufacture and sale of its Ray Rotary Crude Oil Burners and increased its factory and machine shops at San Francisco, California, by purchasing additional ground, erecting additional buildings, securing additional capital, tools and implements, hiring additional workmen and mechanics skilled in the art, for the purpose of building up a larger and more extensive business in said Ray Rotary Crude Oil Burners, and up to the time of the commencement of this suit plaintiffs had expended large sums of money in that behalf, as well as in advertising and opening up new territory, aggregating more than Two Hundred Thousand (\$200,000.00) Dollars, and had manufactured

and sold large numbers of their said Ray Rotary Crude Oil Burners throughout the United States, and many foreign countries, with the result that the plaintiffs now own and operate large and extensive manufacturing works at San Francisco, [31] California, at which its said Ray Rotary Crude Oil Burners are being manufactured; that plaintiffs' said Ray Rotary Crude Oil Burners are in extensive use by the United States Government and by thousands of manufacturing plants, hotels, residences, apartments, resorts and industrial plants throughout the world, the said plaintiffs employing in the aggregate more than seventy-five (75) workmen and employees, carrying on and conducting a large and extensive business and selling the products thereof throughout the United States and foreign countries; that from the date of the dismissal of said suit on the 26th day of May, 1919, up to the 27th day of April, 1922, when the defendant, Bunting Iron Works, filed its answer, neither the said defendant, Bunting Iron Works, nor any person connected therewith or with its predecessor in interest, American Standard Oil Burner Company, ever charged, claimed or pretended that the said Ray Rotary Crude Oil Burner made and sold by plaintiffs were infringements upon the said King patent No. 1,158,058, but on the contrary continuously during all of said period of time, said Bunting Iron Works and said American Standard Oil Burner Company and all persons connected with said corporations, and either of them and/or interested in said King patent No.

1,158,058, remained silent and acquiesced, although at all of said times they were aware of the manufacture and sale of the said Ray Rotary Crude Oil Burners and Ray Oil Burning Systems by plaintiffs and of all the doings and proceedings by plaintiffs in that behalf; that the said Ray Rotary Crude Oil Burners and Ray Oil Burning Systems made and sold by plaintiffs during said period of time and now being made and sold by plaintiffs, and charged herein to be infringements of the said King patent No. 1,158,058, are substantially the same mechanical details of construction, principle [32] and mode of operation as the Ray Rotary Crude Oil Burner and Ray Oil Burning System which were being made by plaintiff corporation and which constituted the subject matter of the aforesaid suit against the plaintiff corporation, W. S. Ray Manufacturing Co., that during all of said times the defendant and its predecessor in interest, American Standard Oil Burner Company, were each of them fully aware that plaintiffs herein were spending large sums of money for an additional plant and equipment and in advertising and were devoting great effort and time to bring said plaintiffs' devices to the favorable attention of the public; that by reason of said silence of said defendant and its predecessor in interest, American Standard Oil Burner Company, and their acquiescence in the doings of the plaintiffs as aforesaid and of the failure of the defendant and the said American Standard Oil Burner Company to assert any claim against these plaintiffs, or either of them,

that plaintiffs' said devices were an infringement, and by reason of the affirmative action on the part of the said American Standard Oil Burner Company in dismissing its suit aforesaid and of the affirmative statements made on behalf of the said American Standard Oil Burner Company and the present defendant, Bunting Iron Works, the plaintiffs herein, and each of them, were led to believe that they, and neither of them, infringed upon the rights of defendant herein or its predecessor in interest, American Standard Oil Burner Company, under said King letters patent No. 1,158,058, and relying upon such belief plaintiffs in good faith continued to manufacture and sell said devices now complained of as infringements of said King patent No. 1,158,058 and otherwise expanded and built up its business, all without protest from or the assertion of any alleged claim of [33] rights by defendants herein, or its predecessor in interest, American Standard Oil Burner Company, or either of them, and this over a long period of years.

WHEREFORE, plaintiffs charge and allege that the American Standard Oil Burner Company, and the defendant herein in its own right and as successor in interest of said American Standard Oil Burner Company, and each of them, is estopped from asserting or maintaining herein the alleged infringement of said letters patent, or any of the claims thereof, and by reason of said facts, defendant and said American Standard Oil Burner Company have, and each of them has, been guilty of laches in asserting any such alleged rights, and in alleging infringement of said letters patent, or

any of the claims thereof, as alleged in the cross-complaint herein.

And plaintiffs further aver that they are informed by their counsel and verily believe and upon such information and belief allege that by virtue of the facts aforesaid defendant ought not to be allowed in equity to maintain its alleged set-off, counterclaim and cross-complaint against plaintiffs, or either of them, and is estopped from so doing.

WHEREFORE, these plaintiffs aver that it is contrary to equity and good conscience for defendant to maintain against them their alleged set-off, counterclaim and cross-complaint, or to obtain an injunction, or an accounting, or any other relief whatsoever, and plaintiffs pray that defendant take nothing by its alleged cross-complaint filed herein and that the same be dismissed, and that judgment be entered in favor of plaintiffs and against defendant in accordance with the prayer of the [34] bill of complaint herein.

W. R. RAY and

W. S. RAY MANUFACTURING CO.

By CHAS. E. TOWNSEND,

Their Attorney.

CHAS. E. TOWNSEND,

Solicitor and Counsel for Plaintiffs.

WM. A. LOFTUS,

Of Counsel.

Receipt of copy of the within Answer admitted this 24th day of June, A. D. 1922.

W. K. WHITE,

For Defendant.

[Endorsed]: Filed Jun. 26, 1922. W. B. Mal-
ing, Clerk. By J. A. Schaertzer, Deputy Clerk.
[35]

In the Southern Division of the United States Dis-
trict Court for the Northern District of Cali-
fornia, Second Division.

Before Hon. GEORGE M. BOURQUIN, Judge.

No. 689—EQUITY.

WILLIAM R. RAY and W. S. RAY MFG. CO.,
a Corporation,

Plaintiff,

vs.

BUNTING IRON WORKS,

Defendant.

Wednesday, March 12, 1924.

REPORTER'S TRANSCRIPT.

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In the Southern Division of the United States District Court, in and for the Northern District of California, Second Division.

Before Hon. GEORGE M. BOURQUIN, Judge.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MFG. CO.,
a Corporation,

Plaintiff,

vs.

BUNTING IRON WORKS,

Defendant.

TESTIMONY.

Wednesday, March 12, 1924.

Counsel Appearing:

For the Plaintiff: CHARLES E. TOWNSEND,
Esq.

For the Defendant: WILLIAM K. WHITE,
Esq.

Mr. WHITE.—If your Honor please, I ask leave to amend the answer by adding two paragraphs thereto, which paragraphs set up the defense that the invention of one of the patents in suit was on sale and in public use in San Francisco in 1914, and prior to September of that year. This public use was only brought to our attention and we gained knowledge of it for the first time on yesterday. However, your Honor, it took place here in San Francisco, and the device, which was an oil burner,

was installed in the Stanford Court Apartments, in this city, and in the Matsonia Apartments, also in this city, by the Wett Company, of this city, prior to September, 1914, and in that year, 1914. So that prior to the time that we put in our proofs it will be a very easy matter for the other side to investigate [36—1] the situation and find out about it, if there is any doubt in their minds about it.

And in connection with that defense, if your Honor please, we will call only two witnesses, one from the Wett Company, who will prove the book entries in connection with those jobs, and the other the man who installed the burner. This application, your Honor, is supported by an affidavit of the president of the defendant company.

Mr. TOWNSEND.—This motion comes somewhat belated. I just received notice a few moments ago of the proposed amendment. The suggested prior use is by a concern that has been in existence here in San Francisco, or was for a great many years, and their business was well known to the whole trade for years. I do not know how this could have been known to us, for this is the first time I have heard of it. I think, your Honor, the motion is rather belated under section 4920 of the Revised Statutes, which requires 30 days' notice before trial. We do not want to delay the trial, but yet we ought not be taken by surprise in this way, with the charge that we have surreptitiously taken another man's invention. This man who is set up as a prior inventor is dead. I think the motion ought to be

denied under the general rule of lack of due diligence.

Mr. WHITE.—We only investigated the matter for about half an hour yesterday, your Honor, and that was during the noon hour; the opposing side could fully investigate it in that same time to the same extent that we did. I do not like to ask for a continuance, but, nevertheless, if this defense is not allowed to be put into this case it will hang on to the case all the way up to the Court of Appeals.

The COURT.—How long has this case been at issue?

Mr. TOWNSEND.—Since 1922, early in 1922. [37—2]

Mr. WHITE.—Yes, since early in 1922.

The COURT.—I have not in *the* mind the statutes, but do they provide that there shall be no evidence of prior use unless pleaded?

Mr. TOWNSEND.—Yes, your Honor, under section 4920 of the Revised Statutes.

The COURT.—And it is not permissible for any other purpose?

Mr. WHITE.—It is permissible, your Honor, for the purpose of showing the state of the art, but it is not permissible for the purpose of anticipation which would invalidate the patent. In regard to these prior uses, your Honor, it is more a matter of luck than anything else that you run across them. You might have a prior use in the very next block to you and yet you would not hear about it. And, of course, you cannot make a search sufficiently to show everything in the world.

The COURT.—I understand that, but, of course, you have to try the case some time. The motion will be denied.

Mr. WHITE.—We note an exception, your Honor.

The COURT.—Yes, let it be noted. Proceed with the case.

OPENING STATEMENT FOR PLAINTIFF.

Mr. TOWNSEND.—This, your Honor, is a patent suit involving oil burners of what is known as the horizontal rotary type. There are three patents sued on, but I have recently learned that with respect to one patent embodying what we call the direction vanes for the air around the nozzle has not been utilized by the defendant since its entering upon the business of manufacturing oil burners. The defendant Bunting Iron Works succeeded, some three or four years ago, to the business of the American Standard Oil Burner Co., that, in turn, the American Standard Company, some years previously succeeded to the business of the American Heat & [38—3] Power Company. So that the deraignment of title upon the part of the defendant is the American Heat & Power Company and the Standard Burner Company, and to its present corporate form, the Bunting Iron Works. So it appears, and I have accepted the statement of counsel and of the officers of the defendant corporation, that since 1920, or 1919, whenever the Bunting Iron Works began the business of making burners, they have, in their corporate capacity, not manufactured patents according to what we call the

second Ray patent on the vanes. Our proofs are directed particularly to the work done by the predecessor, so that we will have to proceed in an independent action against the predecessor. So the suit comes down to this, to a suit on the first Ray patent, which is the burner proper; and the third Ray patent, which covers the oil distributing system by which the oil is received into the burner and delivered to the burner tip and the surplus oil returned to its original source of supply. The feature of this third patent, which for convenience we will hereafter refer to as the second Ray patent, the oil-distributing system is taking the oil in through one hinge to a pump mounted on the fan casing and being delivered thence to the burner, and the surplus oil that is not necessary for the burner being returned through the other hinge; in other words, a hinge oil-distributing pipe system.

I could illustrate just briefly what these are. I have some enlargements to assist in the Court's appreciation of the structure. The first so-called Ray patent is 1,193,819, issued August 8, 1916, application filed November 30, 1914. It embodies a burner made up of very thin fan casing with a very thin large diameter-fan in it, revolving at high speed by means of a motor. The air currents created by this fan of peculiar construction are directed to the periphery and then over a baffle wall or [39—4] partition which is marked "3" in the drawing, and this air current is then directed downwardly and then allowed to proceed through an air nozzle 7 around the burner cup which is marked "11," and

forms a long attenuated cone in the fire-box. The oil is delivered through a pipe externally and shown in the drawing, 14, into a cup of peculiar construction, and there this oil is distributed in a thin film progressively toward the front, and as it discharges over the lip the air picks up the finely-divided oil and carries it forward in that—I will call it columnar—although horizontal—type shape of the inflammable vapor; of course, suitable air for combustion is admitted, and when that is ignited it produces a long flame in a fire-box of desired shape.

The COURT.—These apparently are large burners for industrial uses, are they?

Mr. TOWNSEND.—They are for all sorts of uses, your Honor, from domestic use up to the largest industrial uses. I think they go up to 600 horsepower; that is, from a little family range, from a heater down in the basement, up to a large plant.

The defendant's, or its predecessors' catalogs illustrate the type of flame. The two burners are illustrated here. This one is the defendant's and this one is the plaintiff's. It is hard to recognize the children apart, they are practically identical. They are operated by a motor. The motor shaft is not only the fan shaft to carry the fan, but it also carries the distributing-cup; so that the fan and the cup revolve in unison, giving a swirling motion both to the air and to the oil. The high speed operation effects this desired result. The purpose of the narrow fan and the large diameter is well described in the patent. It will be further accentuated and brought out as may be necessary in the testimony.

The second patent on which we charge infringement is the [40—5] Ray patent 1,285,376, November 19, 1918, filed May 8, 1916. That has substantially the same type of fan construction; a slightly different character of distributing-cup, because in this patent the inventor lets the oil in through the shaft. He used a hollow motor-shaft. The oil is delivered into the cup. The cup is of like construction otherwise. In the first patent the oil coming in from the eccentric position had to be delivered into the cup and therefore had to come in eccentric to the motor shaft; therefore, the rear end of the cup was cut away and the cup supported by a spider within the cup intermediate its ends and connected directly to the shaft. The oil was distributed just back of the spider and was prevented running out from the rear end by an upwardly-turned flange, which is marked "13." In the second Ray patent, a slightly different construction is involved. This patent has to do with the admission of the oil. The fan casing and the burner being entirely hinged on what we call a furnace plate, with a conical projection fitting into the front of the furnace. The hinges on which the plate, and fan, and burner were connected were made hollow. The oil comes in through one hinge, is picked up by a pump, and, if the burner is running and the valve to operate the oil is on, most of the oil goes right through to the burner; but if the flame is turned down more or less, or is turned off, and without stopping the pump, the surplus oil returns to its source of supply through the other hinge.

So we have there the double hinge of the burner, each with its oil conduits, one to take in the oil and the other to return the surplus. That is a feature which we find to be quite new in the art.

The defendant has practically duplicated the plaintiff's [41—6] construction in every essential particular. He has the motor for the fan, the narrow blade, the high velocity, the shape of the cup, as we can readily discern from its internal mechanism, with the spider in the rear flange, the hinge plate which goes into the furnace front—even the peculiar-looking means which in themselves might be varied in a great many ways, but the simplest way was to copy the plaintiff's method. Also the method of taking the oil from an outside source upwardly through one hinge, then to a double tee; there is what we call a double tee. Your Honor knows what a tee connection is in pipe fitting. This is a double tee, with one part leading to the pump and valve to regulate the supply, and a return through the other portion of the tee to the burner, and the excess oil back to the source of supply.

We have there those two outstanding features, the burner construction as an entity, and an oil conduit—the oil supply as a separate part of the combination. The two patents sued on cover those essential features.

Now, in order to have your Honor get a comprehensive view of the situation and know just what the plaintiff did, we may refer briefly to the types of burners that were in use before. There are, today, we will say, the old type of straight-shot burn-

ers, like a long piece of pipe with a slot or an orifice, the oil being admitted at one end and then by means of a high pressure, or a low pressure, current of air or steam blowing the oil into the furnace, like water from a nozzle, spraying it, and then being ignited. That is what we will call, for short, the straight-shot type.

Then there was another called the vapor burner, in which the oil was admitted into some sort of a superheater chamber, and then burned as a gas. That is the general vapor type of burners. [42—7] Then there was, prior to the plaintiff's coming into the field, a type of burner that had been developed by a San Franciscan named Fesler; it became known as the Fess type of burner, put out by the Fess System Company, Inc., formed by Mr. Fesler. It was what we call a vertical rotary type of burner. They had a system of gearing, and they had a vertical cup that went into a specially-prepared fire-box right directly underneath the boiler or the part to be heated. That cup was made to revolve by external means—gearing. And, by the way, that device had to go right into the fire-box, whereas the plaintiff's and the defendant's are external to the fire-box, and not at all subject to the heat of the fire. That vertical rotary type has the vertical outfit right in the fire-box, run by a system of gearing. There were some air vanes, as a rule, attached to this cup, and as that was driven it would create some air suction and blow the thing out in saucer fashion; it created a saucer flame. Working in a horizontal position, you want to get as much flame spread out

over as large an area as possible. That is what was known as the vertical type rotary.

After the Fess system had become established, and likewise before we had taken up our work, the defendant came along with a burner which they characterize as the Simplex burner, practically the same form as the Fess. It was a vertical type. It had a vertical cup, and it spread the air, that is, it spread the flame and the vapor out in saucer-shape fashion over a considerable area. About 1914 they found they could get the same results that were gotten from the other vertical type burner by leaving off what was called a cap that was on the burner. This was an intermediate type. And, by the way, we will refer to two types of burners, no doubt, the defendant's burner as the Simplex Burner, because that is the name that it has been known [43—8] under through the different years, and the plaintiff's burner as the Ray Burner. The intermediate type of burner was some ten or twelve years ago, and was called the Simplex water burner. The oil was let in and dropped down upon a plate, and was there ignited and spread just like burning oil in a pan or on a flat surface. That is illustrative of the state of the art.

There was an intermediate development by the defendant's predecessor. They had a little cup or a cap over their vertical cup which was covered with refractory material and was supposed to protect the interior of the burner. Then they did away with that and had an open cup, with the cup open to the top but flared in such a way that it gave this saucer-

shaped flame. This is an illustration taken directly from their own catalog. So we had here the vertical burner with the cap removed, and with an open cup. Those burners had short vogue; they were a source of serious inconvenience and annoyance, and of limited use. It was by observing the use of all these various types of burner, the vertical type, that led Mr. Ray, some ten or twelve years ago, to develop his burner, and on which the patents were eventually issued. It was following Mr. Ray by some two years, so far as we know, that the defendant came out in the latter part of 1915, just about as the Exposition was to close, with a burner very closely following the Ray burner. But they had meanwhile secured a patent upon this open cup burner, known as the King patent. That King patent is the patent that is set up in the counterclaim.

The defendants will claim, we understand, that all that Mr. Ray has done was to take the King patent and turn it through 90 degrees so that its axis became horizontal. If we should turn this through 90 degrees we still get a saucer-shaped flame, only we get it in the vertical plane. It is quite obvious that the [44—9] two things are not comparable. I simply call attention to that because I understand that that is the burden of their charge of infringement.

Now, as to the personal relations between the parties: They are both California corporations, they are both local concerns. They have grown up like children who have played in each other's back yard. They knew what each other was doing. The defend-

ant had its factory over in Berkeley, and its predecessors had it there; the plaintiff has its factory out here in San Francisco, in what is called the Mission District. As early as December, 1920, almost immediately after the issuance of the King patent, and when the defendant's predecessor was under different management, or partly under the same management now as it was then but the personnel having changed in some respects, a suit was brought against Ray for manufacturing the Ray burner that we have here, on the King patent. All that ever came of that was that we joined issue, and in 1919, I believe—either late in 1918, or in 1919, and after the suit had been put on the calendar and then dropped from the calendar, it was dismissed, under rule 57, for lack of prosecution.

We contend that the counterclaim is a belated backfire that defendant has started, and that it is barred by laches. Of course, legally, as the dismissal was without prejudice, they had the right to begin the suit again, but we contend there has been such laches as to bar any equities in their favor.

Now, I think, your Honor, with that brief statement, unless you would like to know what claims we are going to stand on, I will close, and I am ready to begin the presentation of our case.

I might say that in respect to patent 1,193,819, the first [45—10] Ray patent, we shall rely on claims 7, 8 and 12; and on claims 3, 4, 9, 10 and 11. I put them in that order, your Honor, because they represent two groups of claims. Claims 7, 8 and 12 represent one group; claims 3, 4, 9, 10 and 11 represent

another group. The first group, I should say, relates to general burner construction, the fan with a large diameter, and with its peculiarities of operation. The second group of claims relate particularly to the form of the cup, with the open rear end, and the spider between the ends to support the cup on the shaft, and the feed of the oil eccentric to the shaft. Those particulars are common both to the Ray patent sued on and to the defendant's structure.

As to patent 1,285,376, we charge infringement of claims 1 to 6 and of claims 12, 14, 15, 16, 17, 18, 19, and 20. In a brief analysis I have made of these claims, I have analysed claims 12 to 20 first because they cover a general outline, and in claims 1 to 6 their application would be apparent.

Mr. WHITE.—As I understand it, then, Mr. Townsend, as to that patent 1,285,376, you charge infringement of claims 1 to 6 and of claims 12, 14, 15, 16, 17, 18, 19 and 20. Is that it?

Mr. TOWNSEND.—Yes, 1 to 6, and you might say 12 to 20. I will hand your Honor a copy of that analysis. That closes our opening. Shall I proceed?

The COURT.—Yes, unless the defense desires to make an opening statement.

Mr. WHITE.—I will reserve my statement until the close of the plaintiff's case, with your Honor's permission. I understand, then, that the charge of infringement is withdrawn as to the second Ray patent which is No. 1,184,659, and that an order dismissing the bill of complaint as to that patent may be made.

Mr. TOWNSEND.—As against this defendant, yes. [46—11]

Mr. WHITE.—Then I ask, your Honor, that that order be made.

The COURT.—The order is made accordingly.

Mr. TOWNSEND.—It is agreeable, I believe, to counsel that we may stipulate that the title to the patents of plaintiff in suit are in the plaintiff, as alleged in the bill of complaint; that the title to the patent of the defendant set up in the counterclaim is in the defendant, as alleged in the cross-complaint.

Also, that the devices here before the Court and which will be offered in a moment truly represent structures manufactured respectively by the plaintiff and the defendant prior to the filing of the bill, and within 60 days prior to the beginning of the suit.

Mr. WHITE.—No, Mr. Townsend. I am willing to admit and to stipulate on behalf of the defendant that within the time specified this device here, which is of the defendant's manufacture, was so manufactured and sold by the defendant. As to this other device, here, in regard to the plaintiff ever making it or selling it other than for the purposes of this case, I do not stipulate.

I ask counsel, with respect to plaintiff's alleged infringing acts, to stipulate and to admit that within six years prior to the filing of the cross-complaint and prior to the filing of the bill of complaint in this case, the plaintiff manufactured and sold here in California oil burner devices as disclosed, illustrated and described in this catalog of the plaintiff com-

pany, which at this time I will have identified by having it marked Defendant's Exhibit "A."

It is also admitted that the respective corporate parties are corporations as alleged in the pleadings.

Mr. TOWNSEND.—We admit that this is the plaintiff's catalog [47—12] entitled "Ray Rotary Fuel Oil Burners," and marked as defendant's Exhibit "A."

Mr. WHITE.—And will you stipulate as to the manufacture and sale of the device as stated in my request for stipulation?

Mr. TOWNSEND.—That is true. And the burner of the defendant which we just referred to, and which counsel for defendant admits corresponds to what the defendant did give out, we will ask to have marked Plaintiff's Exhibit 1.

There is also a stipulation—I don't know whether it is of record, or not, in regard to the use of uncertified or unprinted copies of patents in lieu of originals.

Mr. WHITE.—And, furthermore, that the respective filing dates appearing on the letters patent offered in evidence may be deemed as proof of such dates of filing.

Mr. TOWNSEND.—That is the substance of the stipulation.

I offer, as Plaintiff's Exhibit 2, the Ray patent sued on, 1,193,819, August 8, 1916, application filed November 30, 1914.

I offer, as Plaintiff's Exhibit 3 the second Ray patent, No. 1,285,376, November 19, 1918, filed May 8, 1916.

Mr. WHITE.—I may state, your Honor, I have here bound together all the patents which I intend putting in evidence, and also including the Ray patents, so if your Honor desires to have this volume for ready reference I will leave it with you.

The COURT.—Perhaps later on you may. You may need it yourself during the trial. There is no need of putting it in evidence, but it may be submitted then for the convenience of the court.

Mr. TOWNSEND.—In connection with these patents, I offer a certified copy of the file-wrapper and contents of the first Ray patent, 1,193,819, and ask that the same be marked Plaintiff's Exhibit 4.

I similarly offer, as Plaintiff's Exhibit 5, a certified [48—13] copy of the file-wrapper and contents of the second Ray patent in suit, 1,285,376.

I desire to offer also a certified copy of the file wrapper and contents of the King patent, 1,158,058, October 26, 1915, as Plaintiff's Exhibit 6.

Is it agreed, Mr. White, that the plaintiff gave notice or marked its product with the date of the patent in suit prior to the bringing of the suit?

Mr. WHITE.—It is not agreed he gave any notice other than the notice which would be given by marking the device as patented.

Mr. TOWNSEND.—That is sufficient under the statute.

The COURT.—What is that—I didn't catch that?

Mr. WHITE.—I say we do not admit they ever gave any notice to us of any alleged infringement, other than the notice which might be implied by

the notice marked on their device that the same was patented.

Mr. TOWNSEND.—You admit that, Mr. White?

Mr. WHITE.—I will admit that.

Mr. TOWNSEND.—I think we will have to offer evidence on the question of notice otherwise.

TESTIMONY OF WILLIAM R. RAY, FOR
PLAINTIFF.

WILLIAM R. RAY, called for the plaintiff, sworn.

Mr. TOWNSEND.—Q. Mr. Ray, you are one of the plaintiffs in this suit? A. Yes.

Q. Did you ever give notice to the defendant or to its predecessor in interest with respect to the infringement of any of the patents in suit, and if so what were the circumstances?

Mr. WHITE.—That is objected to as leading, and calling for the conclusion of the witness. [49—14]

The COURT.—Yes, but it is merely preliminary. He may answer.

A. As far as my memory serves me, we sent them a letter notifying them they were infringing, and aside from that my brother and I personally delivered a copy of the two patents, that is, No. 1 and No. 3, to Mr. Scott, in the First National Bank Building, in 1918.

Q. Who is Mr. Scott?

The COURT.—A copy of what?

A. A copy of the first and third Ray patents.

Mr. TOWNSEND.—Q. Who is Mr. Scott?

(Testimony of William R. Ray.)

A. I know he is associated with the defendant. I don't know in what position, I presume president or secretary, something of that character.

Q. When you say to the defendant, just explain that a little more; what company was it that you had the dealings with?

A. I ain't sure whether it was the Bunting Iron Works, or the American Standard Burner Company, I don't know which one.

Q. When was that verbal notice given, do you remember? A. 1918.

Q. When was the written notice given?

A. That was some time during 1916.

Q. Have you copies of the letters that you wrote them on the subject?

A. So far, we have been unable to find the letter that we wrote, the first letter.

Mr. TOWNSEND.—We will call upon the defendant to produce the notice referred to by the witness.

Mr. WHITE.—We have no such notice.

Mr. TOWNSEND.—It is admitted, Mr. White, that Mr. George A. Scott is the gentleman referred to by the witness, and he has long been associated with both the Bunting Iron Works, and with its predecessors, as an officer.

Mr. WHITE.—Yes, that is admitted.

The COURT.—What is admitted? [50—15]

Mr. WHITE.—It is admitted that the Mr. Scott referred to by the witness was connected with the American Standard Oil Burner Company, and also

(Testimony of William R. Ray.)

now is connected with the Bunting Iron Works, the defendant, which is a separate and distinct corporation.

Mr. TOWNSEND.—That is all.

Cross-examination.

Mr. WHITE.—Q. Did the American Standard Oil Burner Company at one time file a suit against your company, the W. R. Ray Manufacturing Company, for the infringement of the Ray patent?

Mr. TOWNSEND.—That is hardly cross-examination.

Mr. WHITE.—I simply want to bring out, if your Honor please, that that suit was filed, that an answer was filed in that suit after the issuance of this first patent, and that no charge of infringement was set up in the answer by way of cross-complaint; in other words, that no notice of infringement was given at that time.

Mr. TOWNSEND.—We will stipulate that—

The COURT.—It is not proper cross-examination. The objection is sustained. There is another way to prove it if it is material to your case.

Mr. WHITE.—That is all.

TESTIMONY OF R. S. WHALEY, FOR PLAINTIFF.

R. S. WHALEY, called for the plaintiff, sworn.

Mr. TOWNSEND.—Q. Will you please state your name, age, residence and occupation?

A. My name is R. S. Whaley; I am 37 years old;

(Testimony of R. S. Whaley.)

I live at 2934-36th Avenue south, Seattle, Washington, I am a mechanical engineer by profession. I was educated in the University of Washington, graduated in 1910, and have been practicing the profession of mechanical engineer continuously for [51-16] the last fourteen years.

Q. What is your present business?

A. At the present time I am vice-president and general manager of the Power Plant Engineering Company, a concern dealing in oil burners, power plants in general.

Q. Have you had any business relations with the plaintiff?

A. The Power Plant Engineering Company represents the Ray Manufacturing Company in the territory of Washington, Idaho, and Alaska, for the installation of Ray Oil Burners.

Q. Are you familiar with the rotary oil burner of the plaintiff? A. I am.

Q. Have you examined the same? A. I have.

Q. Have you examined the defendant's structure which is here in evidence as Plaintiff's Exhibit 1?

A. I have.

Mr. TOWNSEND.—Subject to further proof, I offer plaintiff's burner which is here before the Court as Plaintiff's Exhibit 7.

Mr. WHITE.—That is objected to, if by the offer in evidence of this device counsel wishes to indicate that this device is a commercial device made by the plaintiff corporation, which I understand from an inspection is not one of their regular

(Testimony of R. S. Whaley.)

commercial devices, not in accordance with the first patent in suit.

Mr. TOWNSEND.—As I understand, it is a stock burner, but I will offer this merely for identification.

The COURT.—Very well.

Mr. TOWNSEND.—Q. Have you examined the burners of both defendant and plaintiff represented by the exhibits which are here in evidence?

A. I have.

Q. Do you understand the construction?

A. I do.

Q. Will you, for the guidance of the Court, please briefly describe the construction of the Ray burner as you know it, and the defendant's burner as you know it, as represented by Plaintiff's Exhibit 1, using such drawings as you desire, and state [52—17] what you know, if anything, about such drawings.

A. I have before me here a cross-sectional drawing of a horizontal rotary oil burner. It comprises a motor for the driving, a fan of large diameter, and narrow blade area in a housing; also on the same shaft—

Q. (Intg.) Pardon me; as you go along I think the Court would be guided by your giving the reference characters and stating what that drawing is.

A. I have in my hand a reproduction of a drawing which is entitled "W. R. Ray Oil Burner," appearing in the left-hand corner, 1,285,376, patented November 19, 1918, in the right-hand corner. "In-

(Testimony of R. S. Whaley.)

ventor, William R. Ray, by Strong & Townsend, Attorneys," and two witnesses. This is entitled as Fig. 1. It is a longitudinal cross-sectional drawing of a rotary horizontal oil burner comprising a motor designated by No. 11; this motor drives the shaft, which, in turn, drives the fan, an atomizing cup—the shaft is designated as No. 12, the fan is designated as No. 19, the atomizing cup as No. 14; the housing for the fan is No. 7. In operation, this shaft is rotated at high speed by the motor, 11, which drives the fan of large diameter and small blade area, No. 19, driving the air out through its circumference and over a stationary baffle, No. 20; the air passes over this baffle and down through an opening between the baffle and the housing designated as No. 16; the air passes on through an extension of the housing or a nozzle at that point designated as No. 16, and flows out around the outside of the atomizing cup 14, in a restricted area annular with the cup, and the cup being concentric to this flow of air. The purpose of the fan of large diameter and small cross sectional blade area is to deliver a maximum power and high pressure low volume air, the purpose of this air being to be discharged at high pressure around the periphery of the atomizing cup 14 and pick up the oil that [53—18] is thrown off by the atomizing cup in this current of high pressure, high velocity air. The atomization is accomplished by the impinging of this air against the film of oil thrown off by the cup 14.

(Testimony of R. S. Whaley.)

The COURT.—Where does that oil pipe come from?

A. The oil pipe in this case delivers to the center of the shaft and pours out on the inside of the cup; the oil flows down with centrifugal force to the cup, and it is thrown off at the periphery of the cup in a thin film, and the air flowing through opening 16 at the outside of the cup catches it and atomizes it.

The COURT.—I think you had better give that an exhibit number.

Mr. TOWNSEND.—That is an enlargement of the second patent in suit, and that we will ask to be marked.

The WITNESS.—I have in my hand a reproduction of a drawing marked—

The COURT.—What is this, another cross-section?

Mr. TOWNSEND.—That is a second enlargement of another figure of the same patent. I will ask that that be marked Plaintiff's Exhibit 9.

A. This is an exterior view of the outside of the horizontal rotary fuel oil burner showing in particular the hinge device and the method of bringing the oil into the burner and discharging the excess oil back to the source of supply.

Q. You mean the Ray burner?

A. The Ray burner. The pipe No. 27 is the pipe that leads from the source of supply to the hinge No. 26. From 26 the oil flows through pipe No. 25 and into the pump No. 23; from the pump it flows through pipe 32 for a ways, and if it goes into the

(Testimony of R. S. Whaley.)

burner it is diverted and goes into valve No. 22. The oil that is not burned continues through pipe No. 32 and thence through pipe No. 24, through the hinge [54—19] lugs 5 and 9 back into the double tee or hinge 26, and thence through pipe No. 33 back to the source of supply.

Q. Why do you call this hinge—are these movable joints?

A. This pipe 25 and 24 are the pins for a hinge; this is one lug of the hinge, and this is the other lower lug, and the burner swings right out on these pipes, making a stationary means of bringing the oil in and still allowing the burner to be swung out from the firing position.

Q. That is, the pipe is not hinged; these are hinged on the pipe?

A. The pipe acts as a hinge.

I have before me here on a stand an oil burner device marked "Ray oil burner system, series No. 15,428."

The COURT.—Exhibit 7?

A. Exhibit 7 for identification. This is the machine, a cross-section of which I described previously, and the motor is here; the shaft runs from the motor through this housing here, and ends in the atomizing cup here; this atomizing cup turns with the motor; on the inside of that atomizing cup you will see a small pipe; that small pipe does not turn, but pours the oil out on the inside of the cup. On the same shaft with the motor and atomizing cup there is mounted in this housing a fan of large

(Testimony of R. S. Whaley.)

diameter and relatively small cross sectional blade area. These are the blades, here, riveted between two plates.

Mr. TOWNSEND.—The witness refers to a separate element of a fan, which I will ask to be marked Plaintiff's Exhibit 10.

The COURT.—Very well.

A. This fan is mounted on the shaft in this manner, and is rotated by the motor, discharging air out through this small space, here, at high velocity, at high pressure, a small amount of air.

I have in my hand a dissembled part of the front housing to [55—20] the fan. The shaft comes through here to that fan mounted directly upon this thin diaphragm. The fan blows the air out against the periphery of the housing, here, and it must turn and come down between this diaphragm and the front part of the housing.

Mr. TOWNSEND.—I ask that the housing the witness has referred to be marked Plaintiff's Exhibit 11, and the cover be marked Plaintiff's Exhibit 12.

A. (Continuing.) The air then is discharged through here and out through this opening, here, on the front part of the burner. This nozzle is fastened to the front part of this housing by two screws and makes an air-tight joint there between the housing and the nozzle; by removing this nozzle from the front of the housing you can better see the place where the air comes out and surrounds the atomizing cup; the air flowing through this

(Testimony of R. S. Whaley.)

nozzle of restricted area here is forced out around the outside of the cup under rather high pressure. The nozzle is shown on the cross-section in evidence here as No. 17, patent No. 1,285,376, Exhibit 8. The cup throws the oil off normal to its axis of rotation in this way, and the air cutting across that film of oil as it leaves the periphery of the cup is the agent for the atomizing of the oil and the mixing of the air with it for combustion; that is part of the air for combustion, but primarily for the atomization of the oil. I might say here for the Court's information that oil to be burned properly and efficiently must be broken up into very fine vapor and mixed with the proper amount of air to burn. The purpose of this whole device is to accomplish that result, the breaking up of the oil into very fine vapor and mixing with the oil air for combustion.

Q. Continue with your description now of the defendant's device [56—21] if you will, comparing it, if you desire, with the device you have described?

A. I have before me here a drawing entitled "Simplex oil burner." This drawing is a longitudinal cross-section of a rotary horizontal oil burner having a motor and a shaft, the end of the shaft terminating in an atomizing cup mounted on the shaft, a fan of relatively large diameter and small blade area.

Mr. TOWNSEND.—I will ask that that drawing be marked Plaintiff's Exhibit 13.

(Testimony of R. S. Whaley.)

Q. If you will, just state what that drawing is made from, and what you had to do with it.

A. This drawing that I have now marked Plaintiff's Exhibit 13 was made partially under my direction from the machine shown here marked Plaintiff's Exhibit 1.

The COURT.—Is that the defendant's burner?

A. That is the defendant's burner. To continue the description, the fan is of large diameter, and relatively small blade area, discharging its air over a thin diaphragm through a housing, emitting into a nozzle 14—the thin diaphragm being marked 3, the fan being marked 5, the air passage behind the diaphragm being designated as air and being marked 4; the nozzle surrounding the atomizing cup being marked 7, and the air passage through the nozzle being marked 14; the oil is delivered into the cup, where it is driven off radially in a direction normal to the axis of rotation and picked up by a blast of the high pressure air at the periphery of the cup, and the oil is converted into a fine vapor and projected into the furnace.

I have before me here a machine marked Plaintiff's Exhibit 1, which I recognize as an oil burner of the horizontal rotary type of the design known in the trade as the Simplex design. This is the motor, which in the sketch of Plaintiff's Exhibit 13 [57—22] is marked 11; this is the shaft marked 9 in Plaintiff's Exhibit 13; this is the fan housing, in which there is a fan of relatively large diameter and small plate area for discharging air over a

(Testimony of R. S. Whaley.)

diaphragm forward of the fan and behind which the air passes out into the nozzle, which is here marked in Plaintiff's Exhibit 7, and then passing around the outside of the atomizing cup marked in Plaintiff's Exhibit No. 11 to where it picks the oil up and discharges it into the furnace. The action of the air and oil in both Plaintiff's Exhibit 1 and Plaintiff's Exhibit 7 are identical; the atomization of the oil is accomplished the same way, exactly.

Q. As to the means for accomplishing that atomizing, what have you to say?

A. The means for accomplishing atomizing in Plaintiff's Exhibit 1 and in Plaintiff's Exhibit 7 are identical in every way.

The COURT.—Is it disputed by the defense that they are identical?

Mr. TOWNSEND.—I do not know. I do not know whether they make any serious contention that they are not infringements.

The COURT.—If they do not not, there is no use taking up time on it.

Mr. WHITE.—I think they are emphasizing the action of the air in atomizing the oil as compared with the action of the centrifugal cup in atomizing the oil. Of course, they are combined together in doing that.

The WITNESS.—I have before me a drawing—

Mr. TOWNSEND.—We will ask that it be marked Plaintiff's Exhibit 14.

A. —marked Plaintiff's Exhibit 14, which represents an exterior view of a machine designated

(Testimony of R. S. Whaley.)

Plaintiff's Exhibit 1. This drawing was made partially under my supervision, and is a true representation [58—23] of an exterior view of this machine, showing the hinging device in particular. In this device, the oil from the source of supply is brought through pipe 27, thence into the hinge marked 26, down through the pipe No. 25, into the pump, No. 23, out through the pipe No. 32, and if the oil is to be burned, then it is diverted to valve No. 22, if not burned it is not sent back to the source of supply through pipe No. 24, through hinge lugs 5 and 9, and out through the hinge 26, and back to the source of supply.

The COURT.—Is there a hinge at 26?

A. Yes, it is the same hinge giving the double tee.

Q. You mean a union?

A. It is a double tee where the oil comes in here, but there is a division between the two; they are not connected here. On the outside it does not appear. It is identical with the hinge in action and design on plaintiff's Exhibit 7.

Mr. TOWNSEND.—Q. Just explain the use of the red characters on the drawings, Plaintiff's Exhibits 13 and 14, which illustrate the different devices.

A. The numbers used on Plaintiff's Exhibit 13 and Plaintiff's Exhibit 14 are in different colors. The black are used to describe patent No. 1,193,819, and the red are used to describe patent No. 1,285,376.

(Testimony of R. S. Whaley.)

Q. There is one other enlargement that might be marked, of the first patent the witness has just referred to 1,193,819, as Plaintiff's Exhibit 15. Does that complete your description? A. Yes.

Q. What is that?

A. It is an enlargement of the original patent sketch of the first patent of Ray.

Mr. TOWNSEND.—That is all.

Cross-examination.

Mr. WHITE.—Q. In one of these centrifugal burners of [59—24] this type it is necessary, is it not, to have some type of oil distributing cup plus means of rotating that cup, plus means for creating a current of air to be discharged about the periphery of that cup and some means for feeding the oil to the cup?

Mr. TOWNSEND.—That is objected to as a hypothetical question, not cross-examination. This witness was merely called to describe these two specific devices before the Court.

The COURT.—Objection sustained.

Mr. WHITE.—Q. In each of these devices which you have described do you find a rotating oil cup, plus means for rotating that cup, plus means for creating a current of air for discharge about the periphery of that cup, plus means for getting oil into the cup?

A. In the two machines that I have described that is correct.

Q. All these features are essential in each of

(Testimony of R. S. Whaley.)

those machines in order to make it a centrifugal oil burner of this type?

Mr. TOWNSEND.—I object to that as not cross-examination.

The COURT.—The objection is sustained.

Mr. WHITE.—Q. In the defendant's device, do you find an oil cup the same in design as the oil cup in plaintiff's device that you have described, and if not what is the difference between the two oil cups?

A. The oil cup in plaintiff's Exhibit 7 differs in that the oil is brought into the cup centrally in the back end of the cup; in the plaintiff's Exhibit 1 the oil is introduced off center into a flange in the rear side of the cup.

Q. In other words, in the plaintiff's device you have the oil cup joined to the end of the hollow shaft, through which hollow shaft extends a stationary oil pipe for feeding oil into the cup: Is that correct? A. That is correct. [60—25]

Q. In the defendant's device you find an oil cup having a central partition with a rearwardly projecting flange, and the partition being joined to the end of the shaft, and there being a stationary oil pipe for delivering the oil into that rearwardly projecting flange and from there going into the front chamber for discharge? A. That is correct.

Q. In the defendant's device the shaft is solid: There is no oil passed through the shaft: Is that correct? A. That is correct.

Q. You have said that the mode of operation of the two devices is identical in respect to atomiza-

(Testimony of R. S. Whaley.)

tion of the oil; that is true, notwithstanding that in plaintiff's device you have one specific type of oil cup and one specific type of feeding oil to that cup, and in the defendant's device you have another species of oil cup and another species of delivering oil to that cup: Is that correct?

A. The delivery of the oil to the cup has nothing to do with the atomization of the oil.

The COURT.—Answer the question. Read the question.

(Last question repeated by the reporter.)

A. That is true; the method of atomizing the oil is the same in each.

Q. Is the action of the fan in the plaintiff's device any different by reason of being associated therein with a particular species of oil cup and a particular species of means for getting oil into that cup in respect to the fan action of the defendant's device, which is combined with a different species of oil cup and a different species of oil feed to the cup? A. No.

Q. In other words, in these two devices, notwithstanding the differences in respect to the two oil cups and the two means for feeding oil into those cups, the fans operate in the same [61—26] way in accordance with their own law or mode of operation: Is that correct? A. That is correct.

Q. Is that true in regard to the electrical motors in these two devices, that is, they operate precisely in the same way, notwithstanding the fact that in the plaintiff's device one motor is associated with

(Testimony of R. S. Whaley.)

this particular species of cup and oil feed, and in the defendant's device the motor is associated with another species of oil cup, and another species of oil feed? Is that correct?

A. The mode of operation is the same, yes.

Q. You have spoken about the fans in these devices being of large diameter and having blades relatively narrow. What factors govern the construction of a fan of that type?

Mr. TOWNSEND.—I do not think that is proper cross-examination; it calls for a conclusion.

The COURT.—I think so.

Mr. WHITE.—Your Honor, he has described not only these devices but their respective modes of operation, and I desire to know in the operation of the device what this large diameter of fan has to do with any function performed in connection with the other parts of the device. All I want to know is, is it necessary to have a fan of large diameter in order to deliver a small current of air?

The COURT.—I think he may answer. Read the question.

Mr. WHITE.—I will withdraw the question and ask a similar one.

Q. The design of this fan in connection with its large diameter and relatively narrow blades is governed by the desire to create a small volume of air at considerable pressure: Is that correct?

A. It is.

Q. In other words, if you wish to deliver a small volume of air at considerable pressure you would

(Testimony of R. S. Whaley.)

design a fan as you find it [62—27] here in this device: Is that correct? A. That is correct.

Q. You have referred to the first Ray patent in evidence, and an enlarged drawing of Fig. 1 thereof, having been put in evidence as Plaintiff's Exhibit 15. Did you ever see a Ray Manufacturing Company commercial machine embodying an oil cup such as that shown in this drawing, and having this rearwardly projecting flange with a stationary pipe feeding oil into the flanged end in back of that vertical partition? A. Yes.

Mr. TOWNSEND.—I object to that.

The COURT.—It is preliminary. He may answer.

A. Yes.

Mr. WHITE.—When?

A. I believe the first time I saw one of that kind was about a year ago.

Q. Have you ever sold that type? A. No.

Q. Have you ever handled it at all? A. No.

Q. Where did you see such a burner?

A. At the Ray factory.

Q. Was it one of their commercial machines being put on sale by them, or simply a model machine built for some purpose other than sale?

Mr. TOWNSEND.—I do not believe the witness is qualified to answer that.

The COURT.—I doubt if he would be. It would be hearsay, and I doubt if it is proper cross-examination; it goes beyond what he has been interrogated in reference to. If those are material facts to your

case you will have abundant opportunity to otherwise prove them. Any further cross-examination?

Mr. WHITE.—That is all.

Mr. TOWNSEND.—Plaintiff rests.

The COURT.—You may proceed with the defense. [63—28]

OPENING STATEMENT FOR DEFENDANT.

Mr. WHITE.—If your Honor please, the defenses relied on are want of invention, anticipation, prior invention, and use, and in order that your Honor may understand the testimony as it comes in and the position that we take in this case, I will briefly outline our theory of the defense.

In the examination of this witness I brought out, I think, the fact that an oil burner of this type must necessarily embody some kind of an oil cup, some kind of means for rotating that cup, some kind of means for getting oil into that cup, and some kind of means for creating a current of air for discharge about the periphery of the cup. In the plaintiff's device, as just testified to by this witness, we find one species of oil cup in combination with a species of fan, a species of motor means, and a species of oil feed of the cup. In the defendant's device we find a different species of oil cup, a different species of oil feed to that cup, but the same species of fan and the same species of motor, means for rotating the fan and the cup.

As just indicated by the witness, the design of this fan, that is one having a large diameter plus narrow blades, is due to the fact that a small volume

of air is desired to be delivered under considerable pressure. We will show that such a design of fan was old in the art, and whenever anyone in the art for years last past wanted a fan which would deliver a small volume of air at high pressure he would design it with long blades, having a larger diameter compared with the width of the blades. As shown by this witness, the operation of the burner as a whole is not affected by substituting in the combination one species of oil cup for another, one species of oil delivery for another, so that we take the position that [64—29] in this burner of the patent in suit there is merely an aggregation of elements. We will show in the prior art the same species of burner employed by the plaintiff, we will show in the prior art the same type of fan, and the same type of motor, and all that the plaintiff did was to go through the prior art devices, select from one what he thought a desirable type of oil cup, from another what he considered a desirable type of oil feed, and from another a desirable type of fan, and from another a desirable type of motor, and he aggregated these different necessary pieces in making up his complete device. But such a selection of instrumentalities from prior devices and gathering them together in one device, where they perform the same old function in the same old way does not amount to invention; it is mere aggregation.

On that point I wish to refer to just one case decided by the Circuit Court of Appeals for the Sixth

Circuit; we all have great respect for that Court, because its patent decisions have always appealed to most patent attorneys in the country. In the case of Huebner Toledo Breweries Co. vs. Mathews Gravity Carrier Co., 253 Fed. 447, Circuit Judge Warrington said:

“It is said that appellee’s carrier is not anticipated by any single patent; but it is not necessary to show complete anticipation in a single patent. The selection and putting together of the most desirable parts of different machines in the same or kindred art, making a new machine, but in which each part operates in the same way as it operated before and effects the same result, cannot be invention; such combinations are, in the nature of things, the evolutions of the mechanic’s aptitude rather than the creations of the inventor’s faculty.” Citing numerous cases. [65—30]

That is the keynote of one of our defenses, to wit, want of invention.

We will also prove that this specific type of burner used by us and evidently not used by the plaintiff in its commercial machine was invented by a man associated with our predecessor in interest in the year 1911, and we will produce the original burner having the rearwardly projected flange, such as we used made in 1911 by Mr. King and Mr. Becker, in Oakland. We also have a drawing of that device, which we will offer in evidence, and that structure will completely anticipate the particular type of burner which is shown in

the plaintiff's first patent, but which is not embodied in the plaintiff's commercial structure, so far as I know, and as indicated by the witness on the stand.

We also have this defense of estoppel; in other words, years ago this suit was brought by the predecessor in interest of the defendant against the plaintiff concern for the infringement of this King patent; they filed an answer after the issuance of the first Ray patent, but did not set up any cross-complaint charging any infringement of that first Ray patent by the device then being made by our predecessor in interest, which was, practically speaking, the same as we are making now.

We also have this cross-complaint charging infringement of this King patent.

I desire to offer in evidence the following United States letters patent. In that connection, I have had all of these patents bound together for the Court's use, if the Court desires to use them. I also include in the bound volume the Ray patent in suit.

The COURT.—Which one are you offering specifically? [66—31]

Mr. WHITE.—I will offer these patents, and will offer them in the order in which they appear in that bound volume:

Defendant offers in evidence the following United States letters patent, and asks that they be marked as follows:

Cook patent No. 73,506, January 21, 1868, and ask that it be marked Defendant's Exhibit "B."

De Landsee patent March 1, 1870, No. 100,268, as Defendant's Exhibit "C."

Kinney patent No. 315,145, April 7, 1885, as Defendant's Exhibit "D."

Collins patent No. 426,713, April 29, 1890, as Defendant's Exhibit "E."

Klein patent No. 473,759, April 26, 1892, as Defendant's Exhibit "F."

Leyson patent No. 530,539, December 11, 1894, as Defendant's Exhibit "G."

Eddy patent No. 540,650, June 11, 1895, as Defendant's Exhibit "H."

Eddy patent No. 540,651, June 11, 1895, as Defendant's Exhibit "I."

Mack patent No. 548,647, October 29, 1895, as Defendant's Exhibit "J."

Hammam patent 563,483, July 7, 1896, as Defendant's Exhibit "K."

Thom patent No. 668,236, February 19, 1901, as Defendant's Exhibit "L."

Anderson patent No. 719,716, February 3, 1903, as Defendant's Exhibit "M."

Gibbs patent No. 752,900, February 23, 1904, as Defendant's Exhibit "N."

Gordejeff patent 764,718, July 12, 1904, as Defendant's [67—32] Exhibit "O."

Hammam patent No. 799,560, September 12, 1905, as Defendant's Exhibit "P."

Johnson patent 1,009,525, November 21, 1911, as Defendant's Exhibit "Q."

Britten patent 1,022,122, April 2, 1912, as Defendant's Exhibit "R."

Fesler patent 1,026,663, May 21, 1912, as Defendant's Exhibit "S."

Gordin patent No. 1,085,334, January 27, 1914, as Defendant's Exhibit "T."

Becker patent 1,095,447, May 5, 1914, as Defendant's Exhibit "U."

Becker patent No. 1,101,779, June 30, 1914, as Defendant's Exhibit "V."

Britten patent No. 1,102,387, July 7, 1914, as Defendant's Exhibit "W."

Fesler patent No. 1,113,108, October 6, 1914, as Defendant's Exhibit "X."

Shore patent No. 1,157,964, October 26, 1915, as Defendant's Exhibit "Y."

King patent No. 1,158,058, October 26, 1915, as Defendant's Exhibit "C."

These patents I am about to offer in evidence are not pleaded, but they are offered in evidence merely for the purpose of showing the state of the art.

Serrell patent No. 965,025, as Defendant's Exhibits "AA."

Harker patent No. 993,985, May 30, 1911, as Defendant's Exhibit "BB."

Mr. TOWNSEND.—The two patents, Exhibits "Y" and "Z," were [68—33] issued in October, 1915, and are objected to as not competent as publications. They were published more than a year after the date of application of the first Ray patent in suit. They may be competent as to the second Ray patent, but not as to the first.

The COURT.—That will be borne in mind in giv-

ing them consideration that otherwise may be given them.

Mr. WHITE.—I might state that it is clear that each of these patentees of the patents put in evidence was a prior inventor, so that the application date of each patent supports that contention if such application date is prior to the application date of any of the patents in suit. I will call Mr. De Laney.

TESTIMONY OF HERBERT L. DeLANEY,
FOR DEFENDANT.

HERBERT L. De LANEY, called for the defendant, sworn.

Mr. WHITE.—Q. State your name, age, residence and occupation.

A. My name is Herbert L. De Laney; my age is 46. I live at 239 16th Avenue, San Francisco. My occupation is sales manager of the Bunting Iron Works.

Q. For what length of time have you been connected with the defendant Bunting Iron Works?

A. Over three years.

Q. Prior to that time what connection, if any, did you have with the oil burner business?

A. I was previously employed by the Fess System Company.

Q. What has been your experience in connection with this oil burner art which would tend to qualify you as an expert to testify in regard to oil burner structures as shown in patents and patent draw-

(Testimony of Herbert L. DeLaney.)

ings, and working drawings, and as embodied in actual machines?

A. Well, I assisted in working [69—34] out the designs of rotary and mechanical atomizing burners, testing them, since 1910.

Q. Have you read and do you understand the various patents which I have just offered in evidence? A. I do.

Q. Have you read and do you understand the two Ray patents that are in suit?

A. I have and do.

Q. Have you a volume of these patents which I have offered in evidence? A. Yes, I have.

Q. I will ask you to refer to the first patent offered in evidence—

The COURT.—I think we will take a recess until two o'clock.

(A recess was taken until two o'clock P. M.)
[70—35]

AFTERNOON SESSION.

HERBERT L. DeLANEY, direct examination (resumed).

Mr. WHITE.—Q. At the close of this morning's session I called your attention to the Cook patent, being the first prior art patent put in evidence, and asked you to describe briefly the device disclosed therein.

The COURT.—What is the object of this, counsel?

Mr. WHITE.—The object of this, if your Honor please, is to show by these prior patents that the

(Testimony of Herbert L. DeLaney.)

various features embodied in the plaintiff's patented structures were old, and that all that the plaintiff did was to make this selection of the most desirable features.

The COURT.—Well, let him be brief about it and confine himself to like features. He need not go over everything in the other patents where there is no similarity. Wherever they contain like features, let him point them out.

Mr. WHITE.—I will be exceedingly brief in this examination, your Honor. I will just call attention to the main features, without any detail description of them.

A. In the Cook patent is illustrated a system of mechanical atomization of oil, which is a hollow shaft for the oil duct into a revolving head and a pulley or means for revolving this oil-distributing medium.

Q. In the body of the patent specified we find this statement:

“When this method is used of burning hydrocarbon fluids as fuel in steam boiler or other positions, the distributor can be attached in any position, in any convenient place, such as the furnace door, the ash pit,” etc.

Mr. TOWNSEND.—Your Honor, that is from the document, itself, [71—36] and the document, itself, is the best evidence of its contents.

The COURT.—Yes. Never ask a witness to tell you what is in a document. I can read what is in the document myself. It is there and I can read it. Of course, if you want to base a question

(Testimony of Herbert L. DeLaney.)

on it you can remind him of what is there, of course.

Mr. WHITE.—I simply want to emphasize the only real feature in the patent I desire to use.

The COURT.—You can do that in the argument. You need not do it now. But, of course, as I say, if you have any question based on that, you can remind him of it.

Mr. WHITE.—Q. As stated by the patentee in the quotation, is it or is it not feasible, in your opinion, to attach the burner disclosed in this patent to the furnace door? A. Yes, it is.

Q. I refer you to the De Landsee patent and ask you to briefly describe that device.

A. The De Landsee patent illustrates the method of an oil-burning equipment or an oil burner which is hinged to a portion of the door of the fire-box, allowing the burner to swing to and fro from the firing position to a free position.

Q. State whether or not the hinge portion of the De Landsee burner forms a closure for the opening against which it is closed?

A. Yes, it does.

Q. I refer you to the next patent, the Kinney patent, and ask you to briefly describe the features of the same which are relevant?

A. In the Kinney patent they are using the hinge pins as a conduit for steam; also they have a means there for shutting off the flow of steam as the door is swung open. This is used for induced draft conditions.

(Testimony of Herbert L. DeLaney.)

The COURT.—Q. That is to say, in that patent they use [72—37] these pipes for hinge pins?

A. Yes, sir.

Q. And to carry steam, etc.? A. Yes, sir.

Mr. WHITE.—Q. I refer you to the next patent, the Collins patent, and ask you to describe the features thereof which are relevant to the issues.

A. In the Collins patent you have the burner swinging on a pedestal into register with the hole in the furnace door, and you also have the adjustable air passage-way in the nozzle.

Q. For what purpose is that passageway adjusted, according to the disclosure of the patent?

A. In order to accommodate or to regulate the amount of air passing through for the projection of your oil and the atomizing of the oil.

The COURT.—Q. Where do you find the nozzle?

A. As G and E.

Mr. WHITE.—Q. Is E the valve which is adapted to be raised and lowered, in order to expand or to contract the annular air passage?

A. No, E is the air passage.

The COURT.—Q. I see G there at the center of the circular diagram; where do you find E?

A. E is just to the left and a little lower.

Q. You mean to the left of G?

A. Yes, to the left of G.

Mr. WHITE.—Q. What kind of a joint do you call that which is embedded in the oil pipe-line and in the stationary air pipe, adapting the same to be turned, or the nozzle to be turned?

A. A swivel joint.

(Testimony of Herbert L. DeLaney.)

Q. State whether or not that type of joint for similar purposes is now used in any construction manufactured and sold by the Bunting Iron Works? A. Yes, it is.

Q. I refer you now to the Klein patent and ask you to describe the features disclosed therein?

A. In this Klein patent is illustrated the mechanical or rotary force, the mechanical [73—38] atomization of your oil, the oil being fed through a hollow shaft, the shaft carrying the atomizing cup; also carrying a fan for propelling air at the discharge area of the nozzle.

Q. What have you to say in regard to the area of that discharge opening of the air nozzle, relative to the amount of air that would be discharged there through, and the force or pressure of such air?

A. The area of discharge is very much smaller than the passageway of the nozzle; that is, you have a restricted area at the discharge nozzle in comparison to the chamber between the fan and the nozzle.

Q. With what pressure is the air discharged from this Klein nozzle, according to the disclosure of this Klein patent?

A. It creates a pressure that is sufficient to keep the oil, that is, the atomized oil, or the oil leaving the atomizing cup, from striking the edge of the nozzle which is adjacent to the periphery of the cup.

Q. And in this Klein structure, the periphery of the oil-distributing cup is within the outlet opening of the air nozzle: Is that correct? A. It is.

Q. And the air is discharged with such force as

(Testimony of Herbert L. DeLaney.)

to prevent the oil thrown off from the periphery of the cup from striking the inner surface of that air outlet opening: Is that right? A. Yes.

Mr. TOWNSEND.—If you Honor please, that is objected to as leading, and I don't think it is supported by the disclosure in the patent.

The COURT.—It is leading.

Mr. WHITE.—I am trying to cover the ground quickly, your Honor. That statement is in the patent.

The COURT.—That statement is in the patent?

Mr. WHITE.—Yes, your Honor.

The COURT.—I should imagine that would be the effect there [74—39] anyhow if it had air enough—or, rather, I should conclude that. I think perhaps we all know that.

Mr. WHITE.—Q. What would be the effect of such discharge of air in this Klein device with respect to modifying the direction of the flow of the current of oil discharged from the periphery of the oil cup?

A. The discharge of the oil from the atomizing cup without the current of air would be at right angles to the axis. The current of air there would change the oil from right angles to the axis to parallel to the axis.

The COURT.—Q. That is, if strong enough?

A. Yes, sir.

Mr. WHITE.—Q. In that respect, how does the said discharge of air in this Klein device compare with the function performed by the discharge of air in the defendant's device?

(Testimony of Herbert L. DeLaney.)

A. A parallel condition.

The COURT.—Will you read that question, Mr. Reporter?

(Question read by the reporter.)

Mr. WHITE.—Q. In a device such as defendant's device, or in this Klein device, what is the principal means for atomizing the oil?

A. Rotary force, a revolving cup.

Q. State whether or not that function of that cup in respect to atomizing the oil is supplemented by any other means in the device?

A. Yes; your mechanical means of atomization are supplemented by the current of air supplied through the nozzle, and by the fan.

Q. Under what pressure is the air discharged in the defendant's device?

Mr. TOWNSEND.—May I ask, your Honor, if in referring to the defendant's device they are referring to Exhibit 1, or to some device not in evidence?

Mr. WHITE.—To Exhibit 1.

The COURT.—I imagine they are referring to Exhibit 1; it [75—40] is the only one in evidence. While, of course, the record should be made clear, I think we all understand that. Proceed.

A. In the defendant's type of burner there are several sizes; each size carries a certain diameter fan, which gives a certain pressure and volume.

Mr. WHITE.—Q. Why is it necessary in the defendant's device to vary the size of the fan and in this way vary the pressure of the air discharged from the air nozzle?

(Testimony of Herbert L. DeLaney.)

A. Because the smaller sizes of the unit are for small consumption of oil, and the larger sizes for a larger consumption of oil, and the air current or pressure is in proportion to the volume of oil.

Q. In other words, then, it requires a greater pressure to take care of a greater volume of oil discharged from the distributing cup: Is that correct? A. It is.

Q. Can you give the pressure under which the air is discharged from the air nozzle in the defendant's apparatus, Plaintiff's Exhibit 1?

A. No, I cannot.

Q. Can you give it approximately?

A. Approximately about 3 ounces.

Q. Is that a high or low pressure? A. Low.

The COURT.—Q. What do you mean by "3 ounces"—in proportion to what?

A. 3 ounces static pressure.

Q. Even that does not make it clear to a layman.

A. 3 ounces per square inch.

Q. Atmospheric pressure, itself, is what?

A. 14.6 pounds.

Mr. WHITE.—Q. Compare that pressure utilized in defendant's apparatus, Plaintiff's Exhibit 1, with the pressures used in other types of oil burners on the market, and of a higher pressure?

Mr. TOWNSEND.—As to comparison with rotary burners, your [76—41] Honor, they are of no consequence.

The COURT.—Proceed and answer the question.

A. If you take the type of a burner in which the

(Testimony of Herbert L. DeLaney.)

air pressure only is the atomizing means of your oil, it is customary to use 25 or 30 pounds of air pressure.

Q. Now, let me understand you right here. I am more familiar with steam than with air. Do you mean that if you had a gage on the defendant's device the pressure indicated on the gage would be 3 ounces? A. Yes, sir.

Q. That would be rather small.

A. Yes, sir. In other types, other than the mechanical atomizing types, your air is the atomizing medium, while in Exhibit 1 you are using the rotary force for atomizing the oil, assisted by the projection or the air current, which is much less than the straight air-atomizing burner.

Mr. WHITE.—Q. What is the principal function performed by the current of air issuing from the air nozzle in the defendant's device, or in the plaintiff's device, as illustrated in these two exhibits before you, Exhibits 1 and 7?

Mr. TOWNSEND.—If your Honor please, I want to make a general objection to the lack of qualification of this witness to testify to functions and details of this character. He is a sales manager.

The COURT.—We are up in the domain of physics now; the objection will be sustained at this time.

Mr. WHITE.—Q. State whether or not you have acted simply as a salesman for these different oil companies for which you have worked, or have you acted for them in any other capacity?

(Testimony of Herbert L. DeLaney.)

A. Yes, I have acted in the capacity of designing and developing oil burners.

Q. What experience have you had in that line which would qualify [77—42] you to testify in regard to functions performed by these devices?

Mr. TOWNSEND.—That is calling for his own conclusion, your Honor.

The COURT.—But he is asking him for his experience.

A. My experience covers a period from 1910, not exclusively devoted to the development and the designing of burners, but a portion of that time was devoted to that purpose.

Mr. WHITE.—Q. State whether or not that experience enables you to state what is the chief function performed by the air current discharged from the air nozzle in the defendant's device.

Mr. TOWNSEND.—That is an opinion that your Honor can decide yourself, whether he is qualified. I suggest that a sufficient foundation has not been laid for an explanation of the laws of physics.

Mr. WHITE.—It is a very simple matter, your Honor.

The COURT.—Perhaps we all have some knowledge of it. He might have sufficient through his connection in designing and operating these instrumentalities, and associating with men perhaps who have a more profound knowledge of the laws that control. I will allow him to answer, but if the Court, in making up its decision, concludes that his opinion is of no value, it will receive no con-

(Testimony of Herbert L. DeLaney.)

sideration in the determination of the case. For the sake of the record the objection will be overruled and the counsel's exception noted.

A. Yes, sir.

Mr. WHITE.—Q. Please state that chief function.

A. The chief function of the air current in these two types of burners here is for the changing of the current or direction of the oil current from that of right angles to the shaft or axis to parallel to the shaft, or projecting forward. [78—43]

Q. State whether or not in one of these devices, and I am now referring to the defendant's device and to the plaintiff's device which you see before you, the air issuing from the air nozzle is sufficient for the purpose of combustion of the oil consumed in the furnace?

A. That amount of oil would be sufficient at a low point of consumption; in reaching the maximum power or capacity of the burner, it would not be.

Q. And under the latter condition, what is done in order to supplement that supply of oil in the operation of one of these burners?

A. There is a space of additional air allowed to enter the combustion chamber from the atmosphere; that is drawn into the combustion chamber by the pull of the smokestack.

The COURT.—I doubt if you will be at any difference in respect to these matters, or that they have very much bearing on this case.

(Testimony of Herbert L. DeLaney.)

Mr. WHITE.—Q. I refer you to the Leyson patent and ask you to briefly describe the features in that patent relative to the issues in this case.

A. The Leyson patent illustrates a furnace door which is kept cool by a circulation of cold water—or, rather, a circulation of water. The hinge pins are a center line on which the water connection is made, flowing to the hollow door lining, and flowing away from the door.

Q. I refer you to the Eddy patent, and ask you to similarly discuss the same.

A. In the Eddy patent it discloses a mechanical atomizer; the atomizer is carried on a hollow shaft, which is the oil conduit for feeding the oil to the atomizer; a pulley on the shaft which is connected up to some motive power, and a duct leading into the burner, which has a current of oil established [79—44] by some remote means. The rotary head is the means of atomizing the oil. The current of air is the assistant in atomization and the projecting force for the oil into the combustion chamber. On this burner I find, too, the plate surrounding the hole which the burner is inserted through, and also a lining for that hole in the furnace wall.

Q. Please describe the construction of the oil-distributing cup.

A. The oil-distributing cup is composed of two compartments; between the front and the rear compartments is a partition which has a series of holes connecting the rear to the forward section of the cup. The rear section of the cup is connected to

(Testimony of Herbert L. DeLaney.)

the driving shaft. The fuel oil is fed through the hollow shaft into the rear section of the cup, to the perforations in the forward section of the cup, and then discharged from its periphery.

Q. I refer you to the second Eddy patent and ask you to discuss the disclosure thereof.

A. In the second Eddy patent we have the atomizing cup, and it might be called a secondary atomizing means, which is propelled by the fan; you have a hollow shaft for feeding the oil into the atomizing cup, and you have also a fan for furnishing the necessary air, and a pulley for driving the shaft which holds the atomizing cup and the fan.

Q. Aren't you mistaken in regard to the device in the air nozzle being a fan? Isn't it an air-driven motor, in the second Eddy patent?

A. Yes, it is.

Q. And the part 5 which you took for a pulley is a bracket. A. A bracket, yes, that is correct.

Q. So that in the second Eddy patent you have the motor means for turning the shaft mounted on the shaft on which is mounted the distributing cup: Is that correct? A. Yes, sir.

Q. State whether or not the operation of this device disclosed [80—45] in the second Eddy patent is made different by the fact that the motor for turning the shaft on which is mounted the oil cup is directly on that shaft, or is at a remote spot, as indicated in the first Eddy patent

A. I believe the results would be the same.

Q. I refer you now to the Mack patent and ask you to discuss the same.

(Testimony of Herbert L. DeLaney.)

A. In the Mack patent we have a rotary or mechanical atomizing oil cup; we have a tube feeding through a hollow shaft in the oil cup; we have a fan mounted on this shaft for furnishing the air for projecting the oil and atomizing the oil; this fan has a plate or a baffle wall between the fan runner and the case of the apparatus. It has a pulley for driving the fan and the atomizing cup.

Q. Where is the discharge from the fan in this Mack patent?

A. The discharge is surrounding the cup or from the center of the fan case.

Q. Where does the air leave the fan?

A. It leaves at the periphery of the fan, and is led around between the casing of the fan and the baffle plate inside.

Q. What factors control a design of a fan for getting certain results with regard to taking care of a certain volume of air having certain pressure?

MR. TOWNSEND.—That is objected to for the lack of proper foundation, and as calling for the opinion of the witness, as respecting rules of physics or the laws of physics.

MR. WHITE.—This witness is qualified as an engineer and designer in this art.

THE COURT.—I will allow him to answer. If the Court finds it is not entitled to any consideration it will be given none, but you will have it in the record for the sake of any review which either party may desire, instead of having the case sent

(Testimony of Herbert L. DeLaney.)

'81—46] back through some adverse or improper ruling. The objection is overruled and the exception noted.

A. In building a fan for a specific purpose, knowing the desired pressure of air that you wish to carry, the pressure of air will give you the diameter of your fan. The volume of air that you want will be controlled by the width of the fan.

Mr. WHITE.—Q. What would be the proper design of a fan where you wished to take care of a small volume of air at a relatively high pressure?

A. Your runner would be wide enough to carry the necessary volume and the diameter to give you the necessary pressure. For a small volume it would be a comparatively narrow runner.

Q. State whether or not the fan which you find embodied in the defendant's device is designed in accordance with what you have just stated to be the factors entering into the design of a fan to take care of the amount of air which would discharge from the air nozzle in the defendant's device?

A. Yes, it would; it would give you a relatively high pressure for a small discharge opening.

Q. For what length of time, to your knowledge, have fans been so designed in order to take care of varying volumes and pressures of air as indicated by you?

A. I would have to go back a long, long ways into various books which I have read on fan construction over a period of possibly 20 years.

Q. How many? A. 20.

(Testimony of Herbert L. DeLaney.)

Q. I refer you to the Hamman and Voegeli patent and ask you to discuss the same.

A. The Hamman and Voegeli patent illustrates the use of steam operating a blower for an increased draft on burning coal. The blower is mounted on the door of the furnace, and the supply of steam for the blower is brought [82—47] through the hinge pins of the door.

Q. State whether or not that steam conduit forming the hinge pintles of the two hinges is a rigid structure between the two hinges?

A. Yes, it is.

Q. I refer you to the Thom patent, and ask you to discuss it.

A. The Thom patent discloses the swivel joints in the connections to a steam atomizing type of burner, both the steam and the oil being on a swivel connection, allowing the burner to be withdrawn from the fire-box without disconnecting either one of the steam or oil conduits.

Q. Now, discuss the disclosure in the Anderson patent.

A. In the Anderson patent we find the hinge pin used for a conduit, one pin being for steam and air, the atomizing medium, and the other connection being the oil conduit to supply the burners. The burners are projected through the furnace door.

Q. State whether or not the Anderson burners mounted on the door, or a portion of the burners, forms the closing for the furnace opening?

(Testimony of Herbert L. DeLaney.)

A. In this case the burner is fastened to the door.

Q. Now, discuss the Gibbs patent.

A. In the Gibbs patent we have the steam driven turbine operating an atomizing oil cup in which the oil is fed through the shaft of the cup, the motor being on the same shaft, this hollow shaft which feeds the oil to the cup. The fan here is quite a bit larger than the periphery of the discharge.

Q. Is that fan mounted on the shaft on which the motor and the cup are mounted?

A. Yes, it is.

Q. Now, discuss the Gordejefff patent disclosure.

A. The Gordejefff patent discloses a construction there of a conical-shaped nozzle as the burner is inserted through the fire-box lining. This lining is attached to the front plate of the furnace. [83—48]

Q. What is the shape of the lining?

A. The shape of the lining is conical. On this we have the burners hinged to the plate so they may be withdrawn from the combustion chamber.

Q. Is the pintle of the hinge for each burner a part of the oil supply pipe? A. It is.

Q. I refer you to the Hamman patent No. 799,560, of September 12, 1905, and ask you to describe the apparatus described therein.

A. The Hamman patent illustrated here is for an induced draft apparatus. The unit is mounted by hinges to a plate on the front of the furnace

(Testimony of Herbert L. DeLaney.)

wall. It has a housing or casing that projects through the fire or the furnace wall. It has a periphery intake to the fan, and a comparatively central discharge from the fan, the air being led from the periphery of the fan through the casing or around a baffle and then into the discharge; the steam for operating the turbine, which, in turn, operates this fan, is carried on the center line of the hinge pin. This fan is quite a bit wider than the width of the runner.

Q. Describe the disclosure of the Johnson patent.

A. The Johnson patent shows an electric motor which operates the fan, it being on the same shaft as the fan, that is, directly connected, composing a single unit. It has a cast-iron or metal lining surrounding the opening where the burner is inserted into the combustion chamber.

Q. Describe the device of the Britten patent?

A. The Britten patent discloses a rotary head, that is, a rotary burner with the head, the fan, and the motor all on one shaft.

Q. What is the type of motor in the Britten device? A. A water motor.

Q. If you substituted in this Britten device an electric motor for rotating the fan and burner, would there be any difference [84—49] in the mode of operation of this device or the result accomplished? A. Not a bit.

Q. Describe the device disclosed in the Fesler patent of May 21, 1912.

A. The Fesler patent is of the rotary or mechani-

(Testimony of Herbert L. DeLaney.)

real atomizing type of burner. The rotary head has a rearwardly projected collar in which the oil is fed, the feed pipe being a stationary pipe.

Q. What would be the type of flame in connection with this Fesler burner, what would be the form?

A. It might be described as being saucer-shaped.

Q. For what reason would it be so shaped; in other words, what is there in the device of Fesler that would give the flame that saucer shape?

A. The fact that Fesler uses a rotating head for atomizing the oil, and that the current of air supplied by the fan which is housed in the burner head delivers the oil parallel to the oil—delivers the air parallel to the oil current, it gives you the saucer-shaped fire.

Q. To get the cylindrical-shaped flame of this device here of plaintiff and defendant it is necessary, as I understand it, to discharge it at right angles to the oil discharged from the periphery of the cup: Is that correct? A. Yes.

Q. So that in any of these burners you can vary the form of the flame by varying the angle at which the air discharges around the periphery of the centrifugal cup: Is that correct? A. Yes, it is.

Q. I refer you to the Gordin patent, and ask you to describe that device.

A. This discloses an atomizing head or duct, with the fan and the motor all on the same shaft, and the motor being a steam turbine.

Q. Describe the device disclosed in the Becker patent.

(Testimony of Herbert L. DeLaney.)

A. The Becker patent discloses a centrifugal cup and a fan, and [85—50] a hollow shaft through which the oil is pumped to the atomizing cup, the head and fan being on a sliding shaft.

Q. You are referring to the second Becker patent, No. 1,101,779, of June 30, 1914, are you not?

A. June 30, 1914, yes.

Q. Have you the first Becker patent of May 5, 1914, there? A. Yes.

Q. Describe that device as disclosed in that patent.

A. In the Becker patent of May 5, 1914, there is disclosed a motor, a fan, and a centrifugal oil distributor on the same shaft. It would be necessary to have a motor driving your shaft line.

Q. In the Becker patent of June 30, 1914, how is your oil fed to the rotating oil cup?

A. Through a hollow shaft, that is, through a conduit inside of the hollow shaft.

Q. In other words, in that device there is a stationary oil conduit within the hollow rotating shaft: Is that correct? A. Yes.

The COURT.—Where is the cup in that?

A. The cup, here, is Fig. 6.

Q. What is 14 at the very top?

A. That is the cap over the cup.

Mr. WHITE.—That is made of some refractory material to protect the interior of the cup from direct action of the heat in the furnace? A. Yes.

The COURT.—There is something new there. The others did not have that.

(Testimony of Herbert L. DeLaney.)

A. No, the others utilized the open cup and Becker uses what might be termed a closed cup.

The COURT.—Proceed.

Mr. WHITE.—Q. Describe the Britten device disclosed in the patent of July 7, 1914.

A. This discloses a rotating cup, [86—51] a fan, and a water motor on the same shaft, the oil being fed through the shaft to the distributor on top.

Q. I refer you to the second Fesler patent of October 6, 1914, and ask you to describe the device illustrated therein.

A. The Fesler patent of October 6, 1914, has duplex or two ways for atomizing the oil. It has a rearwardly extended cup delivering oil into this rearward extension. That oil tube is inside of a revolving shaft, the revolving shaft carrying the rotating head.

Q. And the oil tube being stationary?

A. The oil tube being stationary.

Q. Now, I refer you to the King patent, and ask you to describe that structure.

A. The King patent of October 26, 1915, discloses an open cup for the atomizing of oil, a conduit through a hollow shaft for conveying the oil to the cup, a fan fastened to the shaft, and a means for driving the shaft.

Q. I refer you now to the Shore patent and ask you to describe the same.

A. The Shore patent has a swivel joint for conveying steam to a furnace opening—not steam, but air, for superheating the air.

(Testimony of Herbert L. DeLaney.)

Q. I refer you now to the Serrell patent, Exhibit "AA," and ask you to describe the disclosure thereof.

A. This Serrell patent discloses the fan runners of a vacuum cleaner, the fan runner being quite narrow in comparison to its diameter. This patent is a multi-stage machine, in which the air furnished enters and passes out through the first fan into a conduit or space leading to the second fan, the second fan runner being a little larger in diameter than the first one, and discharging into a conduit carrying the air to a third runner, and the third runner being of a larger diameter than the two preceding ones. [87—52] The air in each case is taken through the center or through the hub of the fan and discharges at the periphery.

Q. How do the dimensions of the fan blades in this Serrell device compare with the dimensions of the fan used in the defendant's and plaintiff's devices?

A. They are very narrow in proportion to the diameter.

Q. I refer you to the Harker patent, Exhibit "BB," and ask you to discuss the disclosure therein.

A. In the Harker patent there is disclosed a two-stage vacuum pump in which the air is drawn into the hub of the first runner, discharging at the periphery, has an air duct leading back to the hub of the second fan runner, again discharging at the periphery, and the air turning back toward the center of the hub and discharging to the atmosphere.

(Testimony of Herbert L. DeLaney.)

In this case the diameter of the fan is quite a bit wider than the width of the runner.

Q. You stated that at one time you were connected with the Fess Company: Is that correct?

A. Yes, I was.

Q. I hand you a pamphlet and ask you to state whether or not the same discloses the type of burner which was being manufactured and sold by that company at the time that you were in its employ?

A. Yes, it does.

Q. On what page do you find an illustration of such burner, and when was it being sold by that company?

A. It does not give the page number. There is the burner right here, and that was made in 1910.

Q. Here in California? A. In San Francisco.

Q. Now, of what parts does that burner consist? Just briefly describe the same as it was manufactured and sold by that company in California as early as 1910.

A. The equipment consisted of an electric motor to operate the burner, a main driving [88—53] shaft, having a worm reduction gear, end gear, which operated a small oil pump; the shaft extended into a set of bevel gears which carried the power to the vertical shaft carrying the atomizing cup; the pump operating upon a constant speed motor naturally ran at a constant capacity of oil, the amount of oil that was taken over or used on the burner was taken from the pump, and the balance of the oil returned through a relief valve to the source of supply.

(Testimony of Herbert L. DeLaney.)

Q. State whether or not there were in these oil conduits in that structure as sold in 1910 valves for controlling the oil supply to the burner?

A. Yes, there was a valve there to control the flow of oil to the burner; there was also a relief valve that I mentioned that established the back pressure which forces the oil to the burner.

Q. State when that pamphlet or circular which I have just handed you was published and being used in connection with the carrying on of the business conducted in California?

A. That pamphlet?

Q. Yes. A. In 1912, 1913, and 1914.

Q. Can you fix the earliest date when that pamphlet was being used?

A. Well, I have one date here of March 16, 1911, March 20, 1911.

Q. It was published, then, subsequent to those dates? A. Yes.

Q. Can you give us the approximate time when it was published and used by you and your company?

A. Well, it was approximately at those dates.

Mr. WHITE.—I offer this pamphlet in *office* and ask that it be marked “Defendant’s Exhibit ‘CC,’ Fess Company catalog.”

Mr. TOWNSEND.—So far as being offered for publication of any anticipatory idea, we object as not sufficiently proven; if it is offered simply to show what the Fess Company was doing in [89—54] years past there will be no objection on that ground.

(Testimony of Herbert L. DeLaney.)

Mr. WHITE.—That is the purpose for which it is offered.

The COURT.—Very well.

Mr. WHITE.—Q. I hand you what appears to be a bulletin of the American Heat & Power Company, dated March 20, 1914, disclosing an oil-burner arrangement, and ask you to state whether or not you were ever familiar with the construction of the burner disclosed in this circular, and if so when did you first become acquainted with the same, or approximately when?

A. My recollection of first seeing this type of burner was about in 1913.

Q. State whether or not the illustration in that bulletin discloses this return oil conduit which takes care of the surplus oil pumped by the pump and not supplied to the burner? A. It does.

Mr. WHITE.—We offer in evidence this bulletin and ask that it be marked Defendant's Exhibit "DD."

Mr. TOWNSEND.—That, I understand, Mr. White, is a catalog issued about the time stated by the present defendant's predecessor.

Mr. WHITE.—This was issued by the American Heat & Power Company on March 20, 1914.

Mr. TOWNSEND.—One of the predecessors of the defendant.

Mr. WHITE.—Not any predecessor of the defendant.

Mr. TOWNSEND.—I think that you will find that to be the fact; the American Standard Oil

(Testimony of Herbert L. DeLaney.)

Burner Company preceded the Bunting Iron Works, and the American Heat & Power Company preceded the Standard Oil Burner Company.

Mr. WHITE.—There was a transfer along that line.

Mr. TOWNSEND.—As long as it is understood it is all part of the predecessors' work. [90—55]

The COURT.—Anything further from this witness on direct?

Mr. WHITE.—If your Honor will indulge me for just a moment; I think I am about through.

Q. State whether or not any difference in mode of operation results from the fact that in the exhibit here of the plaintiff's commercial oil burner there is an oil cup to which the oil is fed through a stationary oil conduit located in a hollow shaft, whereas, on the other hand, in this defendant's device we have another species of oil cup to which oil is delivered by a stationary pipe on the shaft.

Mr. TOWNSEND.—That is objected to as immaterial; the comparison should be with the plaintiff's device and the defendant's device. As your Honor realizes, the plaintiff's patent 1,193,819 shows the identical structure embodied in defendant's device about which he is inquiring. The variations they have made in the commercial device become immaterial to the question of infringement, so the question is irrelevant and immaterial.

Mr. WHITE.—If your Honor please, the second Ray patent in suit discloses the structure shown in this machine which is commercially sold by the

(Testimony of Herbert L. DeLaney.)

plaintiff corporation. This defendant's device is contended to be an infringement of the patent covering that structure, having that particular species of oil burner, and the first Ray patent which is charged to be infringed by this structure having a different species of oil cup. Now, I wish to have the witness simply compare these two and state whether or not any difference in mode of operation results by reason of the fact that in one of these burners we have one species of oil cup and in the other another species of oil cup. It is the same question I asked of plaintiff's witness. [91—56]

The COURT.—For the sake of the record the Court will overrule the objection and an exception will be noted, and the answer allowed; if not material the Court will give it no consideration; in any event, it will be before the appellate tribunal if necessary. A. There would be no difference.

Mr. WHITE.—Q. In other words, then, when you substitute in one of these oil burners for the particular species of oil distributing cup and oil feed means therein another species of oil cup and oil feeding means you do not modify the mode of operation of the whole device which comprises a fan and a motor: Is that correct? A. Yes.

Q. State whether or not in the operation of the defendant's device the mode of operation of that device as an oil burner would in any way be affected by the fact that instead of carrying the oil to the oil cup through conduits forming the hinge you carried the oil to the cup through a flexible conduit?

(Testimony of Herbert L. DeLaney.)

A. It would not.

Mr. TOWNSEND.—That is objected to as irrelevant. The defendants are doing that way and I cannot see that the inquiry is material.

The COURT.—I don't know just what your claims may cover. I can very readily see what his answer would be. I think any of us can see it would make no difference, but following the rule the objection will be overruled, an exception noted, and it will be in the record; if not relevant or material or competent it will be given no consideration.

Mr. WHITE.—In the operation of this defendant's device, what effect, if any, in its mode of operation would there be in hinging that device to a front plate on the furnace wall and having another plate distinct from this first plate form the [92—57] lining for the furnace opening?

A. There would be none.

Q. Is there any co-operation between this furnace lining or this lining here for the furnace opening and the rest of the device operating as an oil burner?

A. No.

The COURT.—Have you concluded your direct?

Mr. WHITE.—Yes.

The COURT.—Cross-examine.

Cross-examination.

Mr. TOWNSEND.—Q. Mr. De Laney, in referring to the so-called furnace plates of both the plaintiff's device and the defendant's device, it is your custom, is it not, to sell the furnace plates with a conical projection and the burner together as a unit?

(Testimony of Herbert L. DeLaney.)

A. That is the plate and the burner as a part and parcel of the burner?

Q. Yes. A. Yes.

Q. Do you recognize any co-operative action between the conical projection on the so-called furnace plate and the burner, itself, in the manner of certain air that is brought in or induced into the furnace within the hollow conical projection of the plate and the burner tip as having any beneficial effect in cooling the burner tip?

A. I never noticed it.

Q. It is there just the same, is it not?

A. I have burned them both ways without showing any different result.

Q. Speaking of the facts as we find them, there is an air jacket enclosed between the conical hollow projection of the furnace plate and the burner tip of the defendant's burner and the air nozzle when the parts are in position in the furnace? A. Yes.

Q. Now, in accentuating what you said was a 3-ounce pressure, or approximately a 3-ounce pressure at the cup on the defendant's device, would you say that the same condition would approximately prevail in the plaintiff's structure represented by [93—58] Exhibit 7? A. Yes.

Q. And, in so far as these features of fan construction and air velocities and air pressures, you find them approximately the same in the plaintiff's device and in the defendant's device, do you not?

A. Yes.

Q. Now, in your work with the Fess Company,

(Testimony of Herbert L. DeLaney.)

when did you first go to work for the Fess Company, or whatever the corporate name was, if you will be good enough to give it?

A. The Fess System Company—I think July, 1910.

Q. In what capacity?

A. First as a salesman.

Q. And who was in charge of the Fess System Company at that time? A. M. A. Fesler.

Q. Who was the patentee of the patent to which reference has been made in this case? A. Yes.

Q. And he was the general designer of the work that was put out by the Fess Company during the years that he was connected with it? A. Yes.

Q. Who was in immediate charge of work, factory work, under Mr. Fesler?

A. Along in 1910, Mr. Coffman.

Q. Mr. D. G. Coffman, who is present here in the room? A. Yes.

Q. What was his position, do you remember?

A. He was, you might say, Mr. Fesler's assistant.

Q. In charge of production under and co-operating with Mr. Fesler? A. Not at that time, no.

Q. When did he assume charge of production? The COURT.—Is this cross-examination?

Mr. TOWNSEND.—It goes to the qualifications, your Honor.

Q. How long did you continue in a salesman capacity with the Fess Company?

A. There were times along in 1910, 1911, 1912, in fact all the time that I was with them—well, I

(Testimony of Herbert L. DeLaney.)

will say [94—59] not all the time, but I will say possibly 1915, or 1916, along in there; I was not only in the sales end, but also assisted in the designing of the rotary heads.

Q. That is, by designing, do you mean laying out a head for a particular size burner? A. Yes.

Q. Under Mr. Fessler's direction?

A. Yes, under his direction.

Q. And work also in the matter of drawing out the furnace interior to receive these burners?

A. Yes.

Q. During this period up to 1916, what type of burner did the Fess Company put out? Was it or not substantially of this type disclosed in the two patents that you have referred to, and also in the catalog before the Court?

A. Principally that type of rotary burner.

Q. What is known as a vertical rotary head burner? A. Yes.

Q. When did the Fess Company if at all change that type of burner to some other type?

A. You mean the mechanical atomizing type?

Q. Yes, the rotary type.

A. I think our first experiments on that started about 1913.

Q. When did you first commence to put out any different type of rotary burner? A. 1915.

Q. That was known as the Fess turbine type?

A. Fess turbine type.

Q. That Fess turbine type does not use a rotary

(Testimony of Herbert L. DeLaney.)

fan in the sense of a fan mounted on the shaft and giving air velocity for atomization purposes?

A. No, the fan is a separate unit.

Q. In other words, you used a turbine to force a draft of air against the fan to give it its velocity, and therefore give additional velocity to the head?

A. I do not quite understand your question.

Q. Will you describe it for me? That is the easiest way. [95—60]

A. That Fess turbine uses a fan unit which establishes the current of air; that is led to the burner, and the burner proper has a revolving member carried on a ball bearing, or a series of ball bearings, and that member has a series of plates placed in the pathway of this discharging current of air, which causes this revolving member to revolve.

Q. In 1915, when this turbine type of Fesler burner came out, the Ray burner was well known to you, was it not, and Mr. Fesler? A. No.

Q. In what way do you wish to qualify my question?

A. Because the first Ray burner I ever laid my eyes on was out at the Exposition in 1915; I would say it was about March or April, 1915.

Q. And it was subsequent to that that the Fess turbine appeared, as a matter of fact; isn't that true?

A. It was about that selfsame time.

Q. Now, the Fess Company proceeded to put out

(Testimony of Herbert L. DeLaney.)

a turbine type of rotary burner during the time that you were with them? A. Yes.

Q. When did you leave them to go with the present defendant? A. Three years ago.

Q. Three years ago? A. Yes.

Q. Up to the time that you came with the defendant, it is true that the defendant had never put out a turbine burner such as they are putting out to-day, which is now before the court? A. Yes.

Q. Now, at the time that the Ray burner was known to you during 1915, and at the time the Fess burner came out, how soon after that did you first hear of the defendant's horizontal rotary?

A. I don't know as I have any way of fixing that date.

Q. Well, approximately, your best recollection.

A. I could not say whether it was 1915 or 1916.

[96—61]

Mr. WHITE.—He is referring to the defendant, Bunting Iron Works, Mr. De Laney.

Mr. TOWNSEND.—When we are speaking of the defendant's rotary burner we might include, as well, the predecessors of the defendant, American Heat & Power Company, and American Standard Oil Burner Company.

Mr. WHITE.—The Bunting Iron Works did not go into this business until 1919.

Mr. TOWNSEND.—The history of the defendant's work, of course, must be traced through its predecessors.

Q. In other words, you did not hear of the Ameri-

(Testimony of Herbert L. DeLaney.)

can Standard Oil Burner Company coming out with a horizontal rotary burner until after the Ray burner was well known on the market, and also the Fess turbine had become known?

A. Well, I would say that it was about the self-same time.

Q. So far as you recall at this time?

A. As far as I recall.

Q. But I understood you to say a while ago you thought it was either 1915 or 1916 you first heard of the Simplex horizontal rotary?

A. As I recall them, the Fess turbine and the Ray burner and Simplex horizontal rotary all appeared on the market just about the same time.

Q. That is according to your best recollection?

A. According to my best recollection.

Q. Now, we have had reference made to a number of patents which you have run through for the defendant's counsel. Which one of the patents of all of the patents you have referred to do you consider the nearest approach to the plaintiff's patents in suit, or either of them?

A. Well, there are many comparable points in a number of them.

Q. My question is, I am asking you now, which is your one best reference that you can refer to against either of the Ray [97—62] patents, or as against each of them?

A. I cannot see that there is any particular one.

Q. Of the 20-odd patents or so you are not able to pick out any one as standing out pre-eminently

(Testimony of Herbert L. DeLaney.)

above the rest as being an approach, a counterpart to the plaintiff's patents?

A. There are a number of them there that have the same principles involved.

Q. That is not an answer to my question, Mr. De Laney, and I am not admitting the matter of principle and similitude, but can you pick out, if not one, can you pick out a distinct patent by date and number which you will say would be your best art?

A. No.

Mr. WHITE.—The question is objected to as indefinite, because apparently counsel is uncertain in his mind whether he is referring to matters of form, only, or matters of substance. In regard to mode of operation and functions performed, the witness has answered the question.

The COURT.—The witness has pointed out the similarities. I think the objection is good.

Mr. TOWNSEND.—Q. Will you be good enough to turn to the Cook patent, the first one, 73,506; it is obvious, is it not, that this has not a fan?

The COURT.—It shows for itself. I do not care to take up the time on that. He has pointed out the various points of similarity; that is all.

Mr. TOWNSEND.—Manifestly, a patent cannot be anticipated by picking out a part here and a part there.

The COURT.—I don't know whether it can or not. I do not want to foreclose the question. He has endeavored, I think, to show that all of the peculiar features which are the subject of your

(Testimony of Herbert L. DeLaney.)

claims that the court has not read is found there in [98—63] some one or more of these patents, not all of them in any one, but all of them scattered through a number. Now, if the witness has pointed out similarities that you are inclined to cross-examine him upon to show that they are not similar, very good, but I do not think that it is open to you have him tell us all of the points that are dissimilar.

Mr. TOWNSEND.—Oh, no, I did not intend to.

The COURT.—What is not in the patent will show for itself.

Mr. TOWNSEND.—Q. The so-called rotary head or revolving distributor D of the patent is not a cup in any sense, is it, Mr. De Laney?

A. Well, it could be called a cup, it could be called an atomizing head.

Q. In other words, a revolving distributor?

A. In other words a revolving distributor.

Q. That has a series of radial vanes upon its outer vertical surface, hasn't it? A. Yes:

Q. Now, referring to Landsee, No. 100,268, that is not a rotary burner at all, is it?

A. No, it is not.

Q. So far as any burner is shown, you would say it was a straight shot type? A. Yes.

Q. With regard to Kinney, No. 315,145, that is another straight shot type of burner, is it not?

A. It could be, yes.

Q. This burner is simply swiveled to swing in and out of a hole in some part of a furnace front, door or otherwise? A. It shows on the door.

(Testimony of Herbert L. DeLaney.)

Q. The burner, swinging on its swivel, may swing inside of the door? A. It could.

Q. That is the way it is shown, is it not?

A. No, it is shown here in conjunction with the door.

Q. It is shown projected through holes in the door? A. Yes.

Q. But the door being capable of remaining closed after the [99—64] burner is drawn away from it? A. Yes.

Q. There is no fluid passing through the hinges of the door? I understood you to say on your direct examination that there was. I think that you will find you are possibly in error; your fluid comes down to the letter D and then is passed into the burner? A. Yes.

Q. So the fluid does not pass through the door hinge?

The COURT.—What patent is this you are referring to?

Mr. TOWNSEND.—Kinney, 315,145.

The COURT.—I *do not have* noted that the witness said anything about a Kinney patent.

Mr. TOWNSEND.—Yes, No. 315,145; I forget the exhibit number; I made a note of it.

The COURT.—He may have.

Mr. TOWNSEND.—Q. Now, referring to Collins No. 426,713, that is another straight shot type of burner, is it not? A. Yes.

Q. And the so-called head A is a more or less

(Testimony of Herbert L. DeLaney.)

complex structure for superheating the fluid to compose the inflammable vapor? A. Yes.

Q. And the burner is mounted on a swivel entirely separate and independent from the door hinges? A. Yes.

Q. And it has a hinge movement entirely separate and independent from the door hinge movement: That is correct, is it not? A. Yes.

Q. Leyson, No. 530,539, I understood you to say that that was simply a water jacket door.

A. Yes.

Q. And no burner apparently shown? A. No.

Q. Simply an oil passage into the door?

A. Water passage.

Q. A water passage, I mean, into the door, water pipe K, and exit through pipe P: Is that correct?

A. Yes. [100—65]

Q. The first Eddy patent, 540,650, is there any fan in connection with that?

A. The fan unit is in addition to the burner as shown.

Q. You do not see any fan in this patent, do you?

A. No.

Q. You have a force draft through the air conduit D, do you not? A. Yes.

Q. And that is relatively a large area with respect to the quantity of oil that can possibly be delivered through the oil conduit?

A. No, I would not say that.

Q. Well, in comparison with what either the defendant or plaintiff employs, that conduit and the

(Testimony of Herbert L. DeLaney.)

space between the cup and the outside air duct provides for a large amount of air by volume in it?

A. Yes, as illustrated here.

Q. You see no relation existing in the Eddy patent between the speed at which the cup might be revolved and the velocity of the air which came in through the conduit marked D? A. No.

Q. No provision is made for it in the patent, is there? A. No.

Q. The Eddy patent No. 2, No. 540,651, that is a patent you described as a turbine type, is it?

A. Yes.

Q. In which you have a large volume of air coming into an air trunk C operating on the first fan blades 19 to revolve one part of the device: That is true, is it not? A. Yes.

Q. And this same volume of air from some source acting upon a second set of turbine blades 36 to revolve another part of the device? A. Yes.

Q. There is no connection between fan blades 19 and fan blades 36, is there? A. No.

Q. They are two independent turbines performing different functions?

A. Well, the runner 36, or the fan blade 36 runs, you might call it, a second atomizer.

Q. The function performed by one set of blades 19 is one thing, [101—66] and the function performed by the second set of blades 36 is another?

A. Yes.

Q. Different instrumentalities? A. Yes.

(Testimony of Herbert L. DeLaney.)

Q. And this is a forced draft of air from pipe 4, Fig. 1, is it not? A. Yes.

Q. That works these turbine members?

A. Yes.

Q. Now referring to Mack, No. 548,647, did I understand you correctly to say that there was a fan for projecting the oil?

A. A fan for projecting the oil?

Q. I understood you to say that; that was your language, I wrote it down, as I gathered it at the time.

A. You have a fan there for establishing your air current, and you have a current of air that is led parallel to the sides of your cups, and you also have air coming through the perforations surrounding that cup.

Q. Now, will you just indicate by numeral what the cup is that you refer to?

A. The cup is lettered "E"; the air passage I spoke of, which carries the air parallel to the cup, is 20 or 26—I guess it is 20.

Q. You note at the top of page 2 of the Mack specifications that the atomizer E is described as "preferably conical in shape, with the larger end outward, and providing with radiating slots 24 and perforations 25." A. Yes.

Q. So that that cup is a perforated slot oil distributing cup, isn't it? A. Yes.

Q. What is the effect of throwing off the oil through the slots and perforations 25 of this cup upon the surrounding perforated cylinder D?

(Testimony of Herbert L. DeLaney.)

A. Well, you have a multiple of air jets coming off the cylinder D, which would carry that oil forward into the combustion chamber.

Q. Let us see if that is true: The cylinder D is stationary, is it not? A. Yes.

Q. And these perforations are in lines radial to the axis of the [102—67] rotating cup?

A. Yes.

Q. So that the air jets coming through those perforations in D are coming crosswise of the axis of the rotating cup: Is that not true? A. Yes.

Q. Now, which way is the oil traveling from the cup, whether over the lip or through the perforations 25 and the slots 24 of the oil cup—that oil is traveling in a radial direction?

A. Yes, as your oil is admitted into that atomizing cup there, there is a certain amount of oil, that is, the oil that is passing over that first series of holes 25 passing out into D.

Q. Being thrown by centrifugal force at right angles to the axis?

A. Yes, through these holes or perforations at right angles into the tube D.

Q. What would be the effect of oil being splashed off or through the cup E upon the perforations enveloping cylinder D? Wouldn't it be to gradually clog these perforations up, if you used ordinary oil, as you do in burners to-day?

A. The current of air coming out of 20 there would carry the oil forward.

Q. As a mechanic, would you say that the amount

(Testimony of Herbert L. DeLaney.)

of air that would come through that little annular space 20 just rearward of the oil cup E would equal in any proportion whatever the amount of air that would come through the perforations in the cylinder D? A. No.

Q. The amount of air that would go through 20 would be infinitesimal compared with the amount that was intended to go through the perforations in D? A. Yes.

Q. So that you might dismiss as almost negligible the effect of the air that would enter through 20 for atomization purposes?

A. There would be a proportion there with which that air would function, would work. [103—68]

Q. But so far as the action on atomization, it would be negligible?

A. Well, I would not say negligible; no.

Q. You would have the oil passing out through the perforations of cup E or out of the cup E traveling in a direct line in opposition to the air that is entering through the perforations of the wall of D, wouldn't you? A. Yes.

Q. And that would not be in toward the furnace?

A. No, that would be toward the center.

The COURT.—I don't think this witness made any particular explanation of this patent, further than to say it had the power shaft carrying an oil cup and fan. You are trying to use him as an expert on air. He did not say anything about that perforation.

Mr. TOWNSEND.—This goes to the operation of the burner, itself, your Honor.

(Testimony of Herbert L. DeLaney.)

Q. The fan that you see in this Mack patent is of relatively small diameter, with respect to its width? A. No.

Q. It is relatively wide with respect to its diameter. Does that meet with your approval?

A. That is a matter of opinion what the relationship would be between the width and diameter.

Q. As contrasted with plaintiff's and defendant's device, my statement is correct? A. Yes.

Q. You observe that the paddle fan that they have in here causes the air to escape through a comparatively small opening in the periphery?

A. Yes.

Q. And this air that is set in motion by the fan, escaping through the apparently small orifice 7, escapes into a relatively large air trunk?

A. Yes.

Q. And then is carried forward and distributed as you described into and through cylinder D?

A. Yes.

Q. Now, as a matter of fact, do you consider the Mack device a [104—69] very practical one?

A. Well, as the air discharges through port 7 into that large area there, means a slowing up of the velocity of the air, and that means killing or lessening the friction.

Q. As a matter of fact, neither you nor the plaintiff desire that in your device: Is that true?

A. If they were to utilize a larger space there they would slow up the velocity and lessen the friction of the air. I would say it was a desirable feature.

(Testimony of Herbert L. DeLaney.)

Q. It would not serve the purpose, however, of either the plaintiff or defendant in their machines, as you construct them?

A. Well, they do not do it; why, I do not know.

Q. You do not get that action, do you? A. No.

Q. With regard to the cylinder and perforated cup of Mack, would you, as a practical oil man, consider that a practical construction?

A. For a light oil.

Q. For a very light oil? A. Yes.

Q. That had no carbon deposit at all.

The COURT.—Once more, I do not understand that the defendant has introduced these patents on their merits, or as illustrating the likeness between these patents and the others that are in suit, on their own device, other than certain points of resemblance, and I do not see any necessity for going into this cross-examination, whether it is a practical device or not. He has simply pointed out, as the Court remembers the testimony, that it shows some of the factors that enter into your device and the defendant's.

Mr. TOWNSEND.—I would like to say that a patent introduced for one thing may be received for everything.

The COURT.—That is true, but, again, we have a rule with respect to cross-examination. You may show by your own witnesses [105—70] whatever you desire as opposed to their claim.

Mr. TOWNSEND.—I think I can shorten it.

Q. Now, in the Hamman patent, No. 563,483, that is not an oil burner device at all? A. No.

(Testimony of Herbert L. DeLaney.)

Q. It is simply a so-called smoke consumer?

A. That is all.

Q. With a rotary device for discharging some sort of a blast into a furnace for the purpose of aiding in combustion? A. Yes.

Q. The Thom patent No. 668,236, I understand that was offered simply as showing a swivel joint for an oil burner? A. Yes.

Q. Movable toward and from a furnace front?
A. Yes.

Q. It is a straight shot burner and not a rotary burner in any sense? A. Yes.

Q. Anderson, No. 719,716, is another type of straight shot burner? A. Yes.

Q. And I believe you described that the steam came through one of the hinges and the oil came through the other? A. Yes.

Q. That is the only resemblance that patent bears to the device of either the plaintiff's or defendant's patent in suit? A. Yes.

Q. Now, in Gibbs, 752,900, I understood you say that this had a cup. Will you indicate what the part is that you would call a cup?

A. I would call M a cup.

Q. That is nothing but a straight, flat disc, is it?

A. It is a rotary or atomizing plane.

Q. It is a plane horizontally disposed disc with an oil feed up through the middle? A. Yes.

Q. Not a cup at all?

A. No, it would not be called a cup.

Q. I had an idea that your use of that was in-

(Testimony of Herbert L. DeLaney.)

advertent in calling it a cup. This is driven by a steam turbine, is it? A. Yes.

Q. The steam entering at H? A. Yes.

Q. And impinging on runner blades on the turbine wall G: Is that not correct? A. Yes.

[106—71]

Q. And that steam would be generated from some independent, separate source? A. Yes.

Q. Consuming the power and utilizing the heat that you are supposed to generate from this burner?

A. Yes.

Q. What would be the character of the flame that might be produced in this Gibbs burner with this horizontal blade M: wouldn't that be more or less of a saucer shape?

A. It would be a flaring saucer, you might call it, not a flat plane, but a plane that would be possibly an angle of 30 degrees.

Q. Not like the flame that either the defendant or the plaintiff has? A. No, neither one.

Q. The Gordejeff patent, No. 764,718, I understand that illustrates, merely, another type of swivel straight shot burner? A. Yes.

Q. You referred to a conical lining in the fire-box there. A. Yes.

Q. That, however, is a fixture in the furnace, and independent of any of the burners shown?

A. Yes.

Q. Hamman, No. 799,560, that is merely an air blower, turbine air blower, is it not? A. Yes.

Q. And is not the term "induced draft" improper

(Testimony of Herbert L. DeLaney.)

erly used in the patent there? It really ought to be "forced draft," shouldn't it? A. In either way.

Q. That is a turbine forced draft apparatus?

A. Yes, turbine forced draft apparatus.

Q. There is no oil burner of any kind shown?

A. No.

Q. Referring to Johnson, No. 1,009,525, of November 21, 1911, is that anything more than a mere paddle wheel, looking at Fig. 2, revolving in a casing, and that the oil is brought by pipe 57 against the blade of the paddle wheel and broken up in that way? A. Yes. [107—72]

Q. And mixed with whatever air comes along the conduit? A. Yes.

Q. Now, take Britten, No. 1,022,122, that is a water turbine type of burner, is it not? A. Yes.

Q. Used for small installations in stoves and the like? A. Yes.

Q. And the water is admitted through the pipe 14: Is that correct? A. Yes.

Q. The oil supply pipe is 13, and water supply pipe is 14. A. Yes.

Q. By means of this water jet through pipe 14 impinging against a turbine wheel, you set the little spreader blade 8 in motion? A. Yes.

Q. And some air current is induced? A. Yes.

Q. That is not a cup in any sense?

A. No, it is not.

Q. It is simply a flat head corrugated. Coming to Fesler, 1,026,663, is it not a fact that in this type of apparatus and also in the Becker patent

(Testimony of Herbert L. DeLaney.)

here, defendant's predecessors, the atomization is shown to be largely by centrifugal force, and not by any mechanical action? A. In Fesler, yes.

Q. I see that is emphasized in lines 75 to 92 of his specifications. In Fesler there was produced a substantially saucer-shaped flame? A. Yes.

Q. I believe that was illustrated in a pamphlet that was introduced? A. Yes, sir.

Q. In connection with Fesler I call attention to the Becker patent, 1,101,799, of June 30, 1914: Would not that show that the Becker type of apparatus there and the Fesler type just referred to were quite alike? A. No.

Q. They were both vertical rotary centrifugal burners, were they not?

A. That is, they both have the rotating cup and the fan on the same shaft, but the angle of the cup is entirely different.

Q. There is some variation, you would say, in the angle of the [108—73] cup?

A. In the angle of the cup, and the angle of the discharge nozzle.

Q. In what way do you mean?

A. On Becker's patent the air is discharged almost parallel to the shaft that carries the cup, diverging off only a few degrees, and that is all.

Q. You recall that the Becker device, as constructed, produced likewise a saucer-like flame?

A. That would depend entirely on the speed at which they carry the fan.

Q. In actual practice, the burners which the

(Testimony of Herbert L. DeLaney.)

American Standard Company manufactured did produce a saucer-like flame very much like the Fess flame, did they not? A. No, it was straighter.

Q. Your recollection is that it was straighter?

A. Yes. On the Fess, the oil is at right angles to the shaft, and on the Becker it is going up considerably.

Q. I will show you an enlargement, from the defendant's predecessor's catalog or about that time, in which you can see one of the defendant's predecessor's vertical rotary burners with a saucer-like shaped flame; you recognize that, do you not?

A. Yes, that is King's patent.

Q. You believe that that is the King patent?

A. That is the King patent.

Mr. TOWNSEND.—I ask that this first enlargement I have referred to be marked Plaintiff's Exhibit 16. That same cut, your Honor, appears in the little circular the defendant offered.

Q. I show you an enlargement taken from one of the defendant's predecessor's catalogs of a Simplex standard rotary, marked "Patented June 30, 1914," and I ask you if you recognize that, either from the Becker patent or a Standard Simplex burner of approximately that date? A. That is the King.

Q. You believe still that that is the King design? That does not, however, correspond with the King patent, does it? A. No. [109—74]

Q. Do you know what patent it does correspond to? A. Becker's.

Q. Does not that show a saucer-shaped flame?

(Testimony of Herbert L. DeLaney.)

A. It does.

Mr. TOWNSEND.—I ask that that enlargement be received in evidence and marked Plaintiff's Exhibit 17.

Q. When you say the King design, you refer to the King patent of October, 1915, which is in evidence and set up in the defendant's counterclaim?

A. Yes, sir.

Q. The distinguishing feature between the King patent and the Becker patent which you have referred to is in the omission of the top, the cover, which is marked 12, 14, 15 of Becker, June 30, 1914: Is that not true? A. No.

Q. What other distinguishing features would you say King has over Becker other than in the omission of the cover to the cup?

A. The direction or angle of the atomizing cup or edge of the periphery of the blade.

Q. In what respects, and in which?

A. On the King the atomizing blade is at right angles to the shaft, throwing your oil at right angles to the shaft, a straight, rotary direction; in the Becker patent the oil is led off, you might say, like a bell, a short chime on a bell; the current of air is parallel to the sides of that cup, it only diverging by a slight angle.

Q. What effect would that have?

A. It will throw a comparatively straight fire, almost a pillar of fire.

Q. In other words, you believe that the Becker device, as shown in this patent of June 30, 1914,

(Testimony of Herbert L. DeLaney.)

is capable of giving a flame that is of deeper saucer-like character than the King?

A. By giving sufficient speed on that fan, you can throw a pillar of fire. The stronger the current of air the straighter the fire would be.

Q. As a matter of fact, was that the desirable sort of flame under a boiler or in a stove where you have a vertical device? [110—75]

A. I believe that that is what Mr. Becker states in his specifications.

Q. Of course, whatever is stated there we will accept as his purposes and his reasons at that time; but, stating it now as the environment in which a device of the Becker type would go—

The COURT.—Just a moment. I think you are getting altogether away on your cross-examination. You are losing sight of what he testified to in chief. This is not proper at this time.

Mr. TOWNSEND.—Very well, your Honor, I will pass that matter.

Q. Referring to Fesler, No. 1,113,108, what have you to say in comparison with the distribution of oil and the form of the flame, either compared with the Becker patent or the King patent?

A. It is on parallel lines to the King patent.

Q. It is more like the King? A. Yes, sir.

Q. In other words, it produces a more or less true saucer-like flame? A. Yes, sir.

Q. Now, referring to Becker, 1,095,447, of May 5, 1914, what part did you refer to when you spoke of a centrifugal oil distributor as being on the same shaft with the fan?

(Testimony of Herbert L. DeLaney.)

A. I should possibly have said "mechanical distributor."

Q. Then that was not an apt term to use in that regard? A. No.

Q. As a matter of fact, all the Becker patent does is to create a blast of air by the fan, 8, to pick up such particles of oil as may be splashed up by the splashing gears, 4, 6: Isn't that right? A. Yes.

Q. You have no knowledge of any such device as this Becker patent ever having been put into use, have you? A. No.

Q. Now, another patent which we passed over, the Gordin patent, 1,085,334, of January 27, 1914, isn't that another type of turbine operated upon a blast of air from some external source [111—76] to certain parts in rotation?

A. No, that is operated by a steam turbine.

Q. By a steam turbine? A. Yes.

Q. Yes, I see that you are correct. That is a turbine type. Is the steam pipe 15?

A. Yes, it is 15.

Q. That is set in motion by a steam turbine?

A. Yes.

Q. Do you see any oil-distributing cup in the proper sense there?

A. No, it is not exactly a cup, but you have a rotating member there for distributing the oil.

Q. The Britten patent, 1,102,387, of July 7, 1914, is a water turbine pump type, is it not? A. Yes.

Q. With the water supply at 38 impinging upon the buckets 35 to set the parts in rotation?

(Testimony of Herbert L. DeLaney.)

A. Yes.

Q. And you have no cup proper, but you have a saucer-like distributor 4 at the top?

A. Yes, a corrugated saucer-shaped member there.

Mr. TOWNSEND.—Your Honor, as to the other patents, one relates to an air superheater, and the other two patents relate to vacuum cleaners, and I do not think we are at all interested in those.

Q. Do I understand, Mr. De Laney, that you class the Fesler patents and the plaintiff's patents in suit as being the same principle in mode of operation, the same general type or specific type?

A. Which do you mean?

Q. The Fess steam pipe patents which are in evidence, and the plaintiff's patents. A. No.

Q. You do not put those in the same category?

A. No.

Q. Neither, I suppose, do you put the Becker patents in the same category with the plaintiff's patents? A. I would.

Q. You would? A. Yes, sir.

Q. Although they are vertical burners with the tops or covers [112—77] on the oil-distributing cups? A. Yes.

Q. In what way?

A. Because the lines of Becker's cup and the lines of his nozzle controlling his air discharge would permit of the burner carrying a pillar of fire, developing a pillar of fire.

Q. Your opinion is that so far as certain results

(Testimony of Herbert L. DeLaney.)

may be accomplished in Becker, that those two are alike? A. Yes.

Q. I mean Becker and the plaintiff's? A. Yes.

Q. Do you consider that they are alike as to construction in the use of a fan of relatively large diameter, high velocity type?

A. You can get your velocity from a smaller fan by giving it the speed.

Q. Do you consider that the Becker patents and the plaintiff's patents are alike in any respect whatsoever, except that you believe Becker can produce a flame approaching a pillar of fire? A. Yes.

Q. In what respect do you think they are alike?

A. Because the angle of the cup and the angle of the air discharge nozzle with the fan rotating at sufficient speed to give you the requisite velocity of your air would give you an elongated or pillar of fire.

Q. In the general mechanism—

The COURT.—I think the Court will stop this cross-examination. I have repeated time and again that this witness has introduced and has done no more, scarcely, than to identify these patents, and to point out that this one contains a cup and that this one contains a hollow shaft, etc., and that is all. We are not going to hear his opinion as an expert on cross-examination. Your cross-examination is not following the line of the direct examination; it is simply consuming time to no purpose. You will have an opportunity to dissect these [113—78] patents by your own witnesses. If his statements

(Testimony of Herbert L. DeLaney.)

are inaccurate and they do not show these points of resemblance, the patents will show for themselves.

Mr. TOWNSEND.—I have one further point, your Honor. I trust I am within my right of cross-examination if what I gather from this witness' testimony is the approach of the various patents to the plaintiff's patents. May I ask him one other question.

The COURT.—Yes.

Mr. TOWNSEND.—Q. Haven't you recently written an article in which you have described your opinion of the development of oil burning on the Pacific Coast, and touched upon the art of rotary oil burners? A. Yes.

Q. Such article appears in the May, 1923, issue of "Fuel Oil," Vol. 1, No. 11, at pages 13, 14 and 15? A. Yes, sir.

Mr. WHITE.—I don't think that is proper cross-examination now, your Honor please, because all this witness has testified to on direct is perfectly obvious to the ordinary layman.

The COURT.—Let him put his question and we will see. Proceed, counsel.

Mr. TOWNSEND.—Q. You identify that as your article? A. Yes.

Mr. TOWNSEND.—I offer it, your Honor, as admissions against interest and—

The COURT.—Is this witness a party to the action?

Mr. TOWNSEND.—He is the vice-president of the defendant company.

(Testimony of Herbert L. DeLaney.)

Mr. WHITE.—I don't see the relevancy or the competency of the pamphlet.

Mr. TOWNSEND.—Admissions against interest, and in contradiction of much of the testimony this witness has given in testifying to similarities, etc. I offer these three pages, [114—79] 13, 14 and 15, and will supply a photostat of those pages. I ask that it be received as Plaintiff's Exhibit 18.

Mr. WHITE.—Objected to as immaterial, irrelevant and incompetent.

The COURT.—It will be received over the objection; if entitled to no consideration the Court will give it none.

Mr. TOWNSEND.—That is all.

Redirect Examination.

Mr. WHITE.—Q. On cross-examination you stated that the defendant was making a turbine type of burner; I will ask you to state whether that type of burner is disclosed in this October 1, 1921, Bulletin, and if so, just as briefly as possible, describe that type. A. Yes, it is—

The COURT.—What is the object of this?

Mr. WHITE.—The object of this, your Honor please, is simply to show that most of the business of the defendant corporation is in respect to this turbine type, and not in respect to this type, thereby showing that this rotary type here in question has no particular value except as mere matter of design; it has no function in superiority or efficiency.

The COURT.—If it ever comes to the point

(Testimony of Joseph H. King.)

where there will be an assessment of damages that might be material; it is not now.

Mr. WHITE.—I want to offer it in evidence on the question of invention, on the question of mode of operation. This Turbine type is a different device with respect to having the motor and the fan located at a point remote from the motor head—

The COURT.—But you are on redirect now. The Court interposes its own objection. There must be some adherence to the rules of evidence in the examination of the witnesses. Anything [115—80] further on redirect?

Mr. WHITE.—Not on redirect. If the point of your Honor's ruling is that it is not redirect, I will ask permission to ask it as part of my direct examination.

The COURT.—No, call your next witness.

Mr. WHITE.—We note an exception.

TESTIMONY OF JOSEPH H. KING, FOR
DEFENDANT.

JOSEPH H. KING, called for the defendant, sworn.

Mr. WHITE.—Q. State your name, age, residence and occupation.

A. Joseph H. King; 1043 Sixth Avenue, Oakland; occupation at present, President and General Manager of the Marchant Calculating Machine Company, Oakland.

Q. State whether or not at any time you were con-

(Testimony of Joseph H. King.)

nected with the oil burner business, and, if so, in what capacity and in what connection?

A. In the early part of 1911 I bought from Mr. Julius Becker a half interest in what was then known as the water method oil-burning patent. Under my arrangement with him—

Q. Don't go into any details, Mr. King.

A. The American Heat & Power Company was formed and the patents turned over to them, and from that time on until some time in 1915 I was connected with the oil burner business.

Q. What type of oil burner did the American Heat & Power Company build during that period?

A. In the early part, what was known as the water method oil burner, an oil burner burning oil in a Dutch oven, a down draft furnace.

Q. State whether or not prior to March 20, 1914, the American Heat & Power Company was manufacturing and selling here in California the burner disclosed in this Bulletin No. 1, which has been marked Defendant's Exhibit "DD."

A. To the best of my knowledge they were.
[116—81]

Q. State whether or not during this period you alone, or in conjunction with anyone else, devised any specific type of oil-burning apparatus?

A. In 1911 Mr. Becker and myself made and operated a straight-shot rotary oil burner, having a motor, a fan, a pump, and an atomizing cup, and a means for getting the oil into the cup and returning the surplus to the tank.

(Testimony of Joseph H. King.)

Q. What use was made of that device?

A. We were making a test of the principles involved.

Q. What became of that device?

A. The model was made, tested, and the principle involved, or, rather, the principles involved, proven to our satisfaction. We certified to this experiment or test before a notary, put the model away, and continued with the work in which we were engaged, intending at a later date, when our business would permit, to put them into production.

Q. I hand you a drawing, accompanied by a typewritten statement acknowledged before a notary public, and ask you if you can identify this drawing, and, if so, please do so.

A. I made the drawing, I signed the drawing in the presence of three witnesses on the 3d day of August, 1911, and signed the affidavit attached.

Q. In connection with the device which you have just described as having been made by you, what does this drawing illustrate?

A. It illustrates a motor, and a pump, and a fan, and the atomizer—

The COURT.—Q. Did I understand you to say you patented this?

A. We did not get a patent out at that time.

Mr. WHITE.—Q. Does this drawing disclose the device which you have heretofore described as having been made over there?

A. This discloses the device which we made, with the exception of the controls, which we subsequently

(Testimony of Joseph H. King.)

used or used at that time in regulating the volume and the velocity of air in order to [117—82] bend the oil flame into proper shape for use.

Q. Whose signature is this above yours?

A. Julius H. Becker.

Q. Is he the man who worked with you in making this device?

A. He worked with me in making the tests.

Q. And did you and Mr. Becker sign this type-written statement attached to this drawing before the notary public whose name appears here on the certificate, and on the date that the certificate bears?

A. Yes.

Mr. WHITE.—I offer this drawing and the annexed statement in evidence and ask that it be marked “Defendant’s Exhibit ‘EE,’ King-Becker drawing.”

Mr. TOWNSEND.—I object to it as not sufficiently proven or identified, or its custody accounted for.

The COURT.—It bears the signatures, and all that. The objection will be overruled. Proceed with the witness.

Mr. WHITE.—Q. Describe this atomizing cup disclosed in this drawing.

A. The atomizing cup was made in the form of a deep cup, the oil admitted at the rearward end; the shape and pitch of the side walls being designed in such a manner as to retard the flow of the oil from the point of intake to the point of discharge a sufficient time so that the absorption of reflected

(Testimony of Joseph H. King.)

heat would reduce the viscosity of the oil and cause the point of ignition to take place immediately upon the discharge from the periphery.

Q. What was the nature of this air control means which you state you and Mr. Becker used in connection with this device when tested by you in 1911?

A. A collar around the fan with inserts designed to reduce both the velocity and the volume to a point where the air could be directed in sufficient velocity around the flame to turn it out in a pillar-shaped flame. [118—83]

Q. I show you a device and ask you to identify the same if you can.

A. That is the device with which we carried on the test.

Q. In the year 1911? A. In the year 1911.

Q. Is this the device illustrated in the drawing just put in evidence?

A. That is the device illustrated in the drawing, without the collars on the front which reduced the discharge area.

Q. State whether or not the interior of this cylinder indicates an insertion therein of any such collar?

A. I think it shows where they were slipped in on the inside.

Q. Where was this device kept after these tests made by you in 1911?

A. It was put with our models at that time and subsequently in the vault.

Mr. WHITE.—I offer this model in evidence and

(Testimony of Joseph H. King.)

ask that it be marked "Defendant's Exhibit 'FF,' King-Becker 1911 device."

Mr. TOWNSEND.—Objected to as irrelevant and immaterial.

The COURT.—Q. Is all of it here?

A. All of it except the motor and the fan. A conventional motor and a conventional fan were used.

Mr. WHITE.—In other words, it is a complete atomizing cup, but without the motor and without the fan.

The COURT.—It will be received over the objection, and if entitled to no consideration it will be given none.

Mr. WHITE.—Q. I hand you a publication entitled, "Handbook for Architects and Heating Engineers, Copyrighted in 1914," and ask you to state whether you can identify the same, and, if so, when the same was published?

A. I can. It was gotten ont sometime in 1914.

Q. The copyright certificate issued therefor is attached thereto is it not?

A. Yes, the copyright certificate was issued and is attached. [119—84]

Mr. WHITE.—I offer this pamphlet in evidence and ask that it be marked Defendant's Exhibit "GG."

The COURT.—What is the object of it?

Mr. WHITE.—The object of it, if your Honor please, is to disclose the type of burner manufactured prior to that date by the American Heat & Power Company, the same being illustrated in the

pamphlet, and showing the oil returned to this source of supply—in other words, to take care of the surplus.

Mr. TOWNSEND.—You mean prior to the date of copyright, November 20, 1914?

Mr. WHITE.—I mean prior to that time.

Mr. TOWNSEND.—It is apparent, your Honor, this has no disclosure in this catalog of any such device as referred to by the witness, it having been made and designed in 1911. There is no objection, however, to the catalog.

The COURT.—What is the object of it?

Mr. WHITE.—The object of it is to show the fact that the American Heat & Power Company was then manufacturing the burner illustrated in the pamphlet.

The COURT.—That is, you are trying to show that the oil pump return feature was then known?

Mr. WHITE.—That is it, your Honor, that it was an old feature, well known in connection with oil burners at that time.

The COURT.—That is the only purpose you have?

Mr. WHITE.—That is about all.

The COURT.—It may be admitted. It is hardly necessary to encumber the record with that, though. If not entitled to any consideration the Court will give it none in making up its decision.

Mr. WHITE.—The patent in suit is built up on such features as that, your Honor, and I want to show that that is a very old feature. [120—85]

(Testimony of Joseph H. King.)

Mr. TOWNSEND.—Your Honor appreciates that that does not show the 1911 structure. That is the point I want to emphasize.

The COURT.—I understand it.

Mr. TOWNSEND.—We have no objection to the catalog.

Mr. WHITE.—Q. State whether or not this drawing which has been offered in evidence was made in accordance with any scale?

A. It was not made to scale.

Q. Was it a working drawing?

A. It was not a working drawing. It was merely made to show the location of the conventional features—the pump, the fan, the controlled atomizer, and with an apparatus for controlling the velocity and the direction of the air.

Q. With what success was this device tested in 1911, what was the result of the test?

A. It was successful.

Mr. WHITE.—That is all.

The COURT.—Cross-examine.

Mr. TOWNSEND.—Your Honor, may I have a moment to examine this drawing? I have never seen it before.

The COURT.—Yes, but proceed rapidly with the cross-examination.

Cross-examination.

Mr. TOWNSEND.—Q. We are not to understand, Mr. King, that you ever applied for a patent to cover the structure which you state is disclosed in this drawing of August, 1911?

(Testimony of Joseph H. King.)

A. Subsequently we applied for a patent and received a patent, including the same elements, the rotating cup discharged into the interior of the furnace in a vertical manner, and—

Mr. TOWNSEND.—Just a moment. I move that the answer be stricken out as not responsive.

The COURT.—Let it be stricken.

Mr. TOWNSEND.—Q. Did you ever apply for a patent on this [121—86] structure as disclosed in this drawing?

A. I don't remember—I did not.

Q. You did not? A. No.

Q. Did anybody else have any right to apply for a patent besides yourself? I understood you were the inventor of it.

A. I don't exactly understand what you mean. Who do you mean by "anyone else"?

Q. Did you authorize anyone to apply for a patent? A. I did not.

Q. So far as you know, no patent was ever applied for on this structure of August, 1911?

A. At that particular time.

Q. At that particular time, or at any time?

A. No.

Q. The only patent you have, Mr. King, is the patent of October, 1915, which is set up by the defendant in its counterclaim: Is that not true?

A. The only patent which was taken out in my name was the patent on the device with the open cup—according to the best of my recollection.

(Testimony of Joseph H. King.)

Q. What we know as the King patent, 1,158,058, of October 26, 1915?

A. It is known as the King patent, yes.

Q. And that patent was apparently not applied for until March 23, 1914? A. That is right.

Q. Now, during the interim, between March, 1914, and August, 1911, your company was actively engaged in the oil burner business, was it not?

A. It was.

Q. You were making and selling oil burners?

A. The company was.

Q. Yes, the company was. And they were burners first of the type you described as the water type? A. The water method.

Q. Such construction being illustrated in this enlargement from one of the company's catalogs: Is that correct? A. That was the first burner.

MR. TOWNSEND.—I offer this in evidence and ask that it be [122—87] marked Plaintiff's Exhibit 19.

Q. Thereafter, you manufactured a burner of the vertical rotary type, first with a head on it such as is shown in the Becker patent which is in evidence, 1,101,779, of June 30, 1914: Is that right?

A. The company did.

Q. And then subsequently you manufactured the burners of the type illustrated in the King patent before mentioned? A. It did.

Q. And these illustrations from your company's catalog, Exhibits 16 and 17, illustrate such characters of burners then put out?

(Testimony of Joseph H. King.)

A. They were being manufactured then and sold.

Q. For how long a time, if you recall, were such burners of the vertical horizontal type, continued to be put out?

A. I don't recall the exact period, because I was never very active in the business.

Q. As late as 1915 you were actively promoting, or rather, your company was, the sale and distribution of such vertical rotary burners of the King and Becker type? A. The company was.

Q. And, as a matter of fact, it was not until near the close of the Exposition, about October, 1915, that you came out with a rotary burner of the modern type and the Simplex type—the Simplex corresponding to Plaintiff's Exhibit 1?

A. I could not tell you the exact date, but I do know that a burner of this type was arranged to be produced in chronological order, and when the time came it was produced.

Q. And that production came, as I say, toward the latter part of 1915?

A. I am not familiar with that date.

Q. The first burner that you put out, of this horizontal Ray type, such as shown in the advertisement of the American Standard Oil Burner Company, appearing on the inside of the back cover of the "Architect and Engineer of California," for November 1915, like that shown in this illustration--

A. Let me say that I [123—88] was not actively interested in the business at the time, but to the best of my recollection the first straight-shot burner offered on the market was of that type.

(Testimony of Joseph H. King.)

Q. And at about this time?

A. What time is that?

Q. About November, 1915.

A. As to whether it was first offered at that time, I cannot answer.

Q. So that in the meantime, between the appearance of this horizontal burner on the market in the fall of 1915, or at some other time which you do not remember, and August, 1911, when you say you first conceived that idea, you did practically nothing toward putting it into practice, did you?

A. What do you mean by putting it into practice—manufacturing it and selling it?

Q. Yes. A. We did not.

Q. All you did was to make this drawing which is here in evidence and to make the model, a fragment of which is here in evidence, offered on your direct examination.

A. And ultimately took out this patent which we conceive; included all the elements of them.

Mr. TOWNSEND.—I move that all after the word “ultimately” be stricken out as the conclusion of the witness, a legal conclusion.

The COURT.—You are limiting your question to what?

Mr. TOWNSEND.—That all that he did in putting the horizontal rotary burner into practice between August, 1911 and the fall of 1915, or at such other time, was the making of that drawing and the making of this model, a fragment of which is in evidence.

(Testimony of Joseph H. King.)

The COURT.—All right, limit your answer to that, witness.

A. We did not manufacture it and sell it during that period.

Mr. TOWNSEND.—Q. All you did was to make the drawing and the model here in evidence?

A. And to carry on further tests [124—89] during that period.

Q. You have not described any further tests. You said you put that device in the safe. How long did it remain in the safe? A. I could not answer.

Q. Do you know when it was taken from the safe?

A. I could not answer.

Q. Was it resurrected from the safe for the purpose of this suit?

A. I could not answer that because I have not been intimately connected with the business for five or six years.

Q. When did you last see this model before it was offered in evidence here to-day?

A. Probably five years ago.

Q. Was it in the safe then?

A. It was in the safe.

Q. And where was the drawing?

A. In my safe.

Q. And how long did it remain in your safe?

A. Until I delivered to Mr. Scott of the American Heat & Power Company.

Q. How recently?

A. I cannot answer that now, but I have Mr.

(Testimony of Joseph H. King.)

Scott's receipt for it and I can give you the exact date.

The COURT.—Q. Give it approximately; was it a year or two ago?

A. Probably two years ago.

Mr. TOWNSEND.—I don't know that I offered that advertisement in the "Architect and Engineer," on the inside of the cover of the back page. I will ask that it be marked Plaintiff's Exhibit 20. That is all.

The COURT.—Any redirect?

Mr. WHITE.—No, your Honor.

The COURT.—Your next witness.

TESTIMONY OF JULIUS H. BECKER, FOR DEFENDANT.

JULIUS H. BECKER, called for the defendant, sworn.

Mr. WHITE.—Q. State your name, age, residence and occupation.

A. Julius H. Becker; 547 Steiner street, San Francisco; [125—90] mechanical engineer.

Q. Were you ever at any time connected with the American Heat & Power Company?

A. I was from the very beginning.

Q. Where was their place located?

A. At Seventh and Cedar Street, Oakland.

Q. During what period of time were you connected with that company, and in what capacity?

A. From the very beginning, which was the early part of 1911, until the early part of 1914.

(Testimony of Julius H. Becker.)

Q. State whether or not during that period you and Mr. King ever devised any oil burner apparatus, and if so when was it?

A. We first had the water method oil burner, and next we experimented with and tested the horizontal burner.

Q. You have been present during Mr. King's examination, have you not? A. I have.

Q. I refer you to this drawing, and ask you to state when the same was made, and whose signatures appear thereon, and in connection with what incident that drawing was made?

A. It is signed by myself, Mr. King, and dated August, 1911, and in the presence of H. F. Claridge—

The COURT.—You needn't mind the other names. That is Exhibit "EE"?

Mr. WHITE.—Yes, your Honor.

Q. State whether or not you and Mr. King acknowledged the signatures to the statement attached to this drawing at about the time that the drawing was made? A. Yes, sir.

Q. You acknowledged them before a notary public? A. Yes, sir.

Q. And does the description set forth in that statement refer to the annexed drawing?

A. It does.

Q. What was the nature of the device which you and Mr. King made and which is illustrated in this drawing, and what did you and Mr. King do with it, and with what results?

(Testimony of Julius H. Becker.)

A. It was a [126—91] combination of an electric motor and oil pump, gear driven, the horizontal shaft directly on the motor, a fan, a bearing, an oil cup, and an oil supply pipe entering the cup in the rear, surrounded by a horizontal shell.

Q. I show you Defendant's Exhibit "FF," and ask you to state whether or not this forms a part of the device illustrated in this drawing, and which device you say you and Mr. King made at that time in 1911? A. It is; I made it myself.

Q. What portion of the device is contained in this exhibit?

A. The shaft, the bearing, the oil cup, the oil supply line, and the surrounding shell.

Q. What tests, if any, did you make with this device?

A. It was actually installed in the furnace, fire-brick-lined, and it was in actual operation.

Q. With what success?

A. It worked very good, very good success.

Q. In connection with this cylinder surrounding the oil cup, did you or did you not use any means for controlling the air?

A. Yes, there were flanges of different diameters used.

Q. Where was the main flange used?

A. It was on the outside, here, with different holes in it, allowing the outlet for the air to be larger or smaller.

Q. What was the effect of enlarging or of re-

(Testimony of Julius H. Becker.)

ducing the area of the air outlet around this nozzle at the time you made the tests?

A. The larger the hole in the flange, the more air passes, and the more the flame would spread.

Q. In the shape of a saucer? A. Yes.

Q. In other words, the larger the hole the more air and the greater the diameter of the flame?

A. Yes, sir.

Q. Where has this device been, so far as you know, and what was done with the device after you and King made this test? [127—92]

A. It was stored away in a place we had over in the office. We kept the drawings there. They were there so far as I know when I left in 1914.

Q. State what was the practice during the year 1911 with regard to these oil burners, in respect to having oil pumps operating therewith, and having a return oil conduit to the source of supply, to take care of the surplus oil.

A. In 1911 it was the law of the fire marshal in San Francisco that he would not allow an installation unless you had a return flow of your oil through the pump; in other words, we used a motor and an oil pump which we by-passed to return the surplus of oil not used by the burner.

The COURT.—Any further direct of this witness?

Mr. WHITE.—That is all.

The COURT.—Cross-examine.

Cross-examination.

Mr. TOWNSEND.—Q. How recently before go-

(Testimony of Julius H. Becker.)

ing on the stand had you seen the drawing you have just testified about having made back in 1911?

A. I saw it the last time last night.

Q. How long before that had you seen it?

A. I have seen it within the last year, I could not tell the exact date.

Q. In Mr. White's office? A. Yes.

Q. Within the last three months?

A. No, it was closer to a year than to three months.

Q. You think it was a year ago you saw it?

A. I think so, approximately; as I say, I could not tell the exact date.

Q. Couldn't you tell us the month?

A. I say approximately a year ago; that is as close as I can come to it.

Q. Do you think some time last March?

A. It may have been ten months ago, it may have been nine months ago, it may have been eleven months ago. I can't recollect. [128—93]

Q. In what connection did you see it then?

A. You say in what connection?

Q. Yes, for what purpose?

A. We simply talked about it.

Q. Did you know nine months ago or a year ago that you were going to be a witness in connection with this matter?

A. Yes, I had an idea I would be a witness.

Q. Had the matter of the drawing been discussed at that time—nine months ago, or a year ago?

A. I had not seen the drawing for over 12 years,

(Testimony of Julius H. Becker.)

and naturally to refresh my memory on this drawing, I saw at that time.

Q. When did you see the model last before testifying here to-day?

A. The model I also saw in Mr. White's office perhaps two months ago.

Q. Prior to that when had you seen it last?

A. When it was stored away.

Q. When was it stored, according to your recollection?

A. It was stored on top of the office which we used as a place to keep our models.

Q. Do you know where the drawing had been prior to the time it was shown to you a year or so ago?

A. When the drawing was signed, Mr. King had it and he kept it in his possession.

Q. And you had never seen it from that day until comparatively recently?

A. From the day it was signed, no, I had not.

Q. And similarly with respect to the model?

A. The same thing.

Q. Does that model appear in identically the same shape as it was when you last saw it twelve years ago? A. It does.

Q. Had it been dismantled at the time you put it away twelve years ago? A. No, sir.

Q. Then would you say it is identically in the same condition it was in twelve years ago?

A. It appears to be identically the same thing.

(Testimony of Julius H. Becker.)

Q. What had been dismantled at the time you put it away?

A. The motor had been taken off, and the pump, and also the different flanges that gave the different air outlets.

Q. To make that clear, had those been taken away at the time it was stored away?

A. That I cannot say.

Q. I am trying to find out whether or not you have an independent recollection of these occurrences in 1911, or whether you have been relying for your recollection on this sheet of paper and on the model?

A. The only reason why I have seen the drawing again was as regards the date; naturally, I could not recollect the date.

Q. Do you recall Mr. James M. Abbett, of my office, calling upon you last November at your residence here in San Francisco and asking you in regard to some alleged early work in 1911?

A. He called on me and asked me if I would be a witness, and I told him yes I would be ready to testify to exactly what I knew about it at any time.

Q. Do you recall when that visit took place?

A. Yes, it was right in front of my residence.

Q. I say when.

A. I don't remember the time.

Q. Do you remember the month? A. I do not.

Q. You have no recollection now of when that was?

A. No. We had the conversation in my automobile.

(Testimony of Julius H. Becker.)

Q. And you don't know when that was?

A. No.

Q. Was that six weeks ago, or six months ago?

A. It is more than six weeks ago—

Mr. WHITE.—That is objected to, your Honor, as being entirely immaterial and irrelevant.

The COURT.—The objection is sustained.

Mr. TOWNSEND.—I am just testing his memory, your Honor.

The COURT.—Well, it is not vital enough for that. [130—95]

Mr. TOWNSEND.—Q. Didn't you tell him you did not know what kind of a fan was used, or how it was applied or driven?

A. Naturally, it was not for me to tell your attorney or your man any information at that time.

The COURT.—Just a minute. Read the question to the witness. (Question read.) Now, state whether you did, or not.

A. I do not recollect. I do know that I did not give him any information.

Mr. TOWNSEND.—Q. Didn't you state that your reason was that you had not seen a drawing that you thought was made at that time, and it was so long that you had not any recollection at all?

A. No, I didn't say that.

Q. Wasn't that the substance, and didn't you tell him you could not remember any of the details?

A. My whole aim in that conversation was not to give—what is the gentleman's name?

Q. Mr. Abbett.

(Testimony of Julius H. Becker.)

A. Not to give Mr. Abbett any information which I considered was not due to him at that time?

Q. Mr. Abbett made clear to you at that time who he represented, didn't he?

A. Oh, yes, certainly.

Q. He didn't attempt to take any unfair advantage of you? A. Oh, indeed not.

Q. Don't you remember that you made a little drawing for him of all that you could remember?

A. I made a little sketch for him, yes.

Q. Can you reproduce what you think you drew for him?

The COURT.—Oh, no. If you have the paper to examine him about, let him see it. Have you the paper?

Mr. TOWNSEND.—I have not the actual drawing, your Honor. I have not the actual reproduction; he made it on a little piece of paper and put it back in his pocket.

The COURT.—Well, he can do that off the witness-stand; we [131—96] will not take the time to have it done here.

Mr. TOWNSEND.—Can I show him this sketch, your Honor? It is a sketch of what he drew.

The COURT.—Yes.

Mr. TOWNSEND.—Q. I show you a little sketch on the margin of this paper which I will have reproduced; is not that substantially the sketch that you drew for Mr. Abbett at that time?

A. I don't know. I don't remember what I sketched for Mr. Abbett. As I said before, my

(Testimony of Julius H. Becker.)

whole intent was not to give Mr. Abbett any information in regard to this drawing.

Q. And didn't you tell him that that was all you could remember of the construction?

A. I may have; I don't remember.

Q. Didn't he ask you if Mr. King had had anything to do with it and you answered, "Very little, although some suggestions might have been made by him during the experimental work"?

A. I may have said that. I don't remember.

Q. And you also stated to him, did you not, that you had no recollection of any complete operating device being put out on the market?

A. I left in the early part of 1914 and never had any more connection with the business, with the oil pumping business.

Q. But up to the early part of 1914, when you left, they had never sold any of these devices?

A. No.

Q. Where was this so-called test that you speak of conducted, the test of the model in its original form?

A. We had a yard about 50 by 150, right next to the building, and it was conducted outside in this yard. As a furnace, I used 110 gallon oil tank, or barrel, rather. It was fire-brick lined; one end was closed by fire-brick.

Q. In other words, you simply made a little furnace construction out there in the yard?

A. Yes. [132—97]

Q. You did not put this under a boiler for working purposes, did you?

(Testimony of Julius H. Becker.)

A. No, not a boiler. The furnace was built for the purpose of testing the burner.

Q. And no actual work was performed by any power generated therefrom? A. No, no work.

Q. Do you know what quantity of oil you used in connection with that device?

A. I knew then; I don't know now.

Q. You don't know what size motor you employed, do you?

A. If I recollect correctly, it was a one-half horse-power motor.

Q. Did you make any tests of air velocities or economies that might be effected?

A. Do you mean efficiency tests?

Q. Yes. A. No, sir, we did not.

Q. That furnace was shortly afterwards dismantled, too, was it, when you were through with your so-called tests?

A. The furnace was eventually dismantled; I could not tell you the time, though, I could not tell how long it remained after we were through with the tests.

The COURT.—Conclude with this witness and then we will suspend.

Mr. TOWNSEND.—Q. Did you feed the oil in this experimental device by pump or by gravity?

A. By pump.

Q. Was it a standard type of pump that you employed? A. It was a gear pump.

Q. A gear pump such as was well known and in use at that time for force feed?

A. It was a gear pump and gear driven.

Mr. TOWNSEND.—That is all.

Mr. WHITE.—That is all.

The COURT.—We will suspend until to-morrow morning at 10 o'clock.

(An adjournment was here taken until to-morrow, Thursday, March 13, 1924, at ten o'clock A. M.) [133—98]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

Before Hon. GEORGE M. BOURQUIN, Judge.

No. 689—IN EQUITY.

WILLIAM R. RAY & W. S. RAY MFG. CO., a Corporation,

Plaintiff,

vs.

BUNTING IRON WORKS,

Defendant.

Thursday, March 13, 1924.

REPORTER'S TRANSCRIPT.

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Mr. WHITE.—As I understand, if your Honor please, plaintiff does not rely on claims 12 and 13 of the second patent in suit, but I wish to have that acquiesced in by plaintiff's counsel.

Mr. TOWNSEND.—That is correct, your Honor, Claims 12 and, possibly, 13, relate to the vanes, and for the reasons explained yesterday—

The COURT.—What is the second patent?

Mr. TOWNSEND.—No. 1,285,376.

The COURT.—You announced yesterday you relied on 12. Now you waive it?

Mr. TOWNSEND.—We waive 12.

The COURT.—12, and 13 you do not rely on?

Mr. TOWNSEND.—I do not think we rely on it at all.

The COURT.—You made no mention of 13 yesterday; you mentioned 12 to 20, excepting 13.

Mr. TOWNSEND.—Yes.

The COURT.—Very well. Proceed.

TESTIMONY OF WILLIAM E. LELAND, FOR DEFENDANT.

WILLIAM E. LELAND, called for the defendant, sworn.

Mr. WHITE.—Q. State your name, age, residence and occupation.

A. William E. Leland; age, 54; consulting engineer; residence, 704 Alameda, Berkeley.

Q. State whether or not at any time you, on behalf of the G. E. Witt Company, of this city, examined one of its oil burner installations, and, if so, when and where?

(Testimony of William E. Leland.)

A. I examined one of their installations at the Stanford Court Apartments, about October, 1914. [135—99]

Q. I show you a bulletin of the G. E. Witt Company, and ask you to state whether or not the same contains an illustration of such installation so examined by you?

Mr. TOWNSEND.—I understand that this, your Honor, is simply offered to show the state of the art.

Mr. WHITE.—Yes, that is correct.

Mr. TOWNSEND.—If it relates to the matter embodied in their proposed answer yesterday, which was denied, we object to it.

The COURT.—Whatever limited purpose it serves, it will be considered in connection with that. The witness may answer.

A. Yes, that is the apparatus that was installed.

Mr. WHITE.—I offer this bulletin in evidence and ask that it be marked Defendant's Exhibit "HH."

Q. Do you recall the construction of the oil burner cup in that installation so installed by you at that time? A. Yes, in a general way.

Mr. TOWNSEND.—We object to the publication as not sufficiently proved.

The COURT.—I am rather inclined to think so.

Mr. WHITE.—I am offering it as illustrating what the witness just stated he saw.

The COURT.—For that purpose it is sufficient. The objection is overruled and an exception will be noted.

(Testimony of William E. Leland.)

Mr. WHITE.—Q. I hand you a device and ask you to identify the same, if you can.

A. Yes, that is a head similar to the one that was on the burner which I examined.

Q. At that time? A. Yes.

Mr. WHITE.—I offer this device in evidence and ask that it be marked Defendant's Exhibit "II."

Mr. TOWNSEND.—Objected to as irrelevant and immaterial, and not sufficiently proved. [136—100]

The COURT.—It will be admitted. For the sake of the record, the objection is overruled. If not competent, the Court will give it no consideration.

Mr. WHITE.—That is all.

The COURT.—Cross-examine.

Cross-examination.

Mr. TOWNSEND.—Q. This piece of metal just shown you, Mr. Leland, and in evidence as Exhibit "II," do I understand you to say that is the same head that was in the apartment at that time?

A. No, I could not say that.

Q. You don't know where this particular device came from? A. No.

Q. Do you know what happened to that burner that was put in that place?

Mr. WHITE.—Objected to as not proper cross-examination.

A. No, I do not.

(Testimony of William E. Leland.)

The COURT.—It is cross-examination. It may be preliminary. He may proceed briefly.

A. No, I do not.

Mr. TOWNSEND.—Q. Did you see it subsequently at any time to the date of October, 1914?

A. I could not say as to that date, but not recently, in any event.

Mr. TOWNSEND.—That is all.

The COURT.—I understand you are a consulting engineer; of what profession or vocation?

A. Consulting mechanical engineer.

Mr. WHITE.—I have no other witnesses, unless I recall Mr. DeLaney, but before doing so I wish to call your Honor's attention to the fact that yesterday I offered to prove that the defendant was manufacturing a rotary type of burner, which is shown in these photographs, and the principal part of its business consisted in the manufacture and sale of that type of burner, [137—101] and that offer of proof was objected to and the objection sustained; but I did not make an offer in accordance with Rule 46 of the Equity Rules, and, therefore, at this time I desire to formally offer to prove these facts, that the defendant is and has been manufacturing the type of burner disclosed in these photographs, and the principal part of its business is the manufacture and sale of that type.

The COURT.—In other words, some different burner than this?

Mr. WHITE.—Yes, it is a rotary type in which the fan and motor are located at a distance from

the burner tip, the air and fuel being fed into the burner.

The COURT.—That is to say, you have not denied making the burner alleged to be an infringement?

Mr. WHITE.—Oh, no.

The COURT.—But you contend you were making some other burner?

Mr. WHITE.—Yes.

The COURT.—I cannot see that it is material.

Mr. WHITE.—On the defense of aggregation or want of invention, by showing that a burner having this motor and this fan located at a distance, we get the same result as when the motor and fan are located on the same shaft; that it makes no difference where the motor is, or the fan, in regard to the operation of the device. That is the only object.

The COURT.—I do not think it is necessary for that purpose. I think I can see that as well as anybody else, if you apply the power it does not matter where it come from, so far as usefulness or effectiveness are concerned—I am not passing on the merits of the combination. Do you still object to this?

Mr. TOWNSEND.—We do object as having no bearing on this. [138—102]

The COURT.—We will follow the rule. It will be admitted over the objection, the objection overruled, and an exception noted; if not entitled to any consideration, the Court will give it none. The

purpose of that is it would not do for a case to go up and it be sent back on the theory that something that might be competent was omitted. If this case goes to the appellate tribunal it will be tried anew, and they will have all the evidence there. I am frank to say I can see no purpose that will be subserved.

Mr. WHITE.—With reference to the cross-complaint, I desire to reoffer the King patent in evidence and have the same marked Defendant's Exhibit "G."

The COURT.—Which one is that?

Mr. WHITE.—That is the King patent that is sued on in the cross-complaint. It is already in evidence in behalf of the defense, but I am reoffering it on the cross-complaint.

The COURT.—It will be considered in the record for that purpose. It will not be necessary to print it twice. Is there any objections to it?

Mr. TOWNSEND.—No, your Honor.

The COURT.—Very well, it is admitted.

Mr. WHITE.—And the circular, Defendant's Exhibit "HH," is already in the record, but I ask that it be considered as part of the case on the cross-complaint.

The COURT.—It may appear in the record.

Mr. WHITE.—In support of the cross-complaint, I offer in evidence a certified copy of the bill of complaint and answer in this suit brought by the American Standard Oil Burner Co. vs. The W. S. Ray Mfg. Co. some years ago, for the purpose of showing notice of infringement of this

(Testimony of Harry Barley.)

King patent, which was sued on in this case by our predecessor in interest, and ask [139—103] that it be marked "Defendant's Exhibit" next in order.

Mr. TOWNSEND.—I have a certified copy, which includes the bill, the answer, and the order of dismissal.

The COURT.—What is counsel offering?

Mr. WHITE.—The bill and answer. If counsel wishes to put his certified copy in it is agreeable it may go in as showing the order.

Mr. TOWNSEND.—I would like to have it appear as showing the order of dismissal.

The COURT.—It may go in.

Mr. WHITE.—It was dismissed without prejudice.

(The document was marked Defendant's Exhibit "KK.")

That concludes our case.

The COURT.—Any rebuttal?

Mr. TOWNSEND.—Yes, your Honor.

TESTIMONY OF HARRY BARLEY, FOR PLAINTIFF (IN REBUTTAL).

HARRY BARLEY, called for the plaintiff in rebuttal, sworn.

Mr. TOWNSEND.—Q. Mr. Barley, will you please state your name, age, residence and occupation?

A. Harry Barley, 105 Westwood Drive; superintendent W. S. Ray Mfg. Co. plant; 43 years old.

(Testimony of Harry Barley.)

Q. How long have you been with the Ray Company, the plaintiff in this case?

A. Five years last November.

Q. Did you ever work for the G. E. Witt Company, the concern mentioned on the bulletin No. 18, Defendant's Exhibit "HH"?

A. Yes, I was shop foreman for about, I think, in the neighborhood of ten years.

Q. During what years?

A. From 1909 until about 1917 or 1918.

Q. Do you know anything about the history of the so-called Witt burner, referred to in that circular, and illustrated by the [140—104] burner device, the head of which was offered in evidence by the defendant as Exhibit "II"? A. Yes.

Q. Will you tell us what you know of that?

A. Well, I know that it was a failure. We built some, and they were installed and were taken out, not working properly. In fact, I do not believe there was one job that I can remember of that they received payment for.

Q. How soon was that failure discovered?

A. Immediately after they were put in and the fire was started we had trouble with the shaft warping, and the fire burning out against the front, and holes in the back of the casing filling up with carbon, and running over the back of the atomizer, and out the furnace front.

Q. Will you briefly describe the construction of that burner and compare it with either plaintiff's rotary burner Exhibit 7 or the defendant's rotary burner Exhibit "I"?

(Testimony of Harry Barley.)

Mr. WHITE.—Objected to as immaterial. The burner, itself, is in evidence, and speaks for itself.

The COURT.—What he has is simply a drawing. He may proceed. The objection is overruled.

A. Well, I don't see that I could describe it in any way with the exception that it has some parts—it was made up of gears and worms; that is the only thing I can say.

Q. Did it have an encased fan on it? A. No.

Q. How did it operate?

A. Well, it threw a saucer-shaped flame practically straight out from the end of the burner. That was our trouble, trying to get it burn ahead; instead of that it would throw out on the side walls.

Mr. TOWNSEND.—That is all.

Cross-examination.

Mr. WHITE.—Q. When did you see the burner at the Stanford [141—105] Court Apartments?

A. I was never at the Stanford Court.

Q. Who owned the Stanford Court, L. H. Sly?

A. Sly, I believe. The reason I remember it is I believe the company started suit against him for payment for the burner.

Q. For what length of time was that burner installed at the Stanford Court?

A. I could not tell you.

Q. On the back of that bulletin do you find a letter from Mr. L. H. Sly, praising the satisfactory operation of that burner?

A. I do not go anything on letters, because we

(Testimony of Harry Barley.)

were always dating letters and one thing or another in the company.

Q. Do you know whether there was a burner installed at that time by Mr. Herman Barth in his building, that is still in it and operating?

A. I do not.

Q. Do you mean you don't know anything about Barth's burner of this type? A. No.

Q. Do you know anything about the Matsonia burner of this type which was installed in 1914 by Mr. Sly and referred to by him in this letter of September 18, 1914?

A. The only recollection I have of the Matsonia, is the burner was thrown out.

Q. Did you ever see the burner there?

A. No, I never went on any job there.

Q. How do you know they were thrown out?

A. Because they came back to the shop.

Q. When? A. I could not tell you the date.

Q. How many years after the installation?

A. I don't think it was years, I think it was months.

Q. After the operation of these burners for some months, was not the only change made in the burner head increasing the sizing of these perforations so as to facilitate the passage of the oil from the rearwardly projecting flange into the front [142—106] of the burner?

A. I will tell you, the changes were so fast and furious I could not keep track of them.

TESTIMONY OF WILLIAM R. RAY, FOR
PLAINTIFF (RECEIVED IN REBUTTAL).

WILLIAM R. RAY, recalled for the plaintiff in rebuttal.

Mr. TOWNSEND.—Q. Mr. Ray, will you please tell us of your training in mechanical lines?

A. At the age of 13 or 14 I went to work for my father, and not liking the business I was desirous of entering the electrical business, so I first served a year at the Electric Engineering Company on Mission Street, who were building electric elevators. I afterwards went to the Union Iron Works, where I served four years as a machinist and electrician. During that period we installed the Market Street power house at 11th and Bryant, the Emporium, and miscellaneous other small jobs. After leaving the Union Iron Works, I came back with my father again, and have been there since, that is, with the W. S. Ray Manufacturing Co., first as an employee, and later a stockholder, and now a stockholder and president of the company. During this time I finished my schooling at night, three years at grammar and two years at mechanical drawing.

Q. How long has the W. S. Ray Manufacturing Company, either under that name or a like name, been in existence? A. Since 1871.

Q. What line of work?

A. Principally marine work, plumbing and sheet metal, and the manufacture of ranges, both for oil and coal.

(Testimony of Wm. R. Ray.)

Q. You are the patentee of the two patents in suit? A. Yes.

Q. Will you tell us of the origin of the invention?

A. During 1911 and 1912, I was experimenting on other types of oil burners, aside from the rotary type, but during 1913 we started experimenting on the mechanical rotary type, and I [143—107] made my first drawing in—I have got to refer to dates, there are so many of them—November, between November and December, 1913, I made my first drawing of the model burner over in the corner of the room. That burner was manufactured between March and April, 1914, and put in operation in a small building on our property in the Mission.

Q. We will get the burner that you refer to.

A. It is right over in the corner.

Q. There are three metal parts here to which you have referred. Will you briefly tell us what they are, what relation they bear to your narration?

A. In my first burner that I manufactured, which is exhibited here, it consisted of a casing for a fan on this side, a nozzle projected into the furnace. On the opposite side of this casing, which was a cover which supported the motor, which in turn had a protected shaft, carried a fan, an atomizer, which was centrally located in the nozzle. On this first burner it was fastened to the furnace permanently, and had no means of swinging to and from the furnace for inspection, or removing it from the

(Testimony of Wm. R. Ray.)

reflex head of the furnace, after shutting down. I soon discovered that this was not the proper thing, and you will note that I riveted on two band iron hinges which I used for wheeling this burner from the furnace, using a flexible oil connection to make the connection to the oil feed valve. This first burner, I had no air diaphragm in it for carrying the air to the nozzle; we found that by taking air pressures from the periphery of the fan and also at the nozzle that there was considerable drop in air pressure; on my second burner, which—

Q. (Intg.) Just before we pass on to that, Mr. Ray, are these the drawings that you refer to as having made your conception [144—108] in November and December, 1913? A. Yes.

Q. How much of that original burner, as you constructed it in the early spring of 1914, is missing, if any?

A. We have the motor in the factory at the present time, it was an Emerson motor; we have it now running a small emery wheel. The only thing missing is practically the atomizing cup.

Q. And the motor shaft

A. And the extended motor shaft.

Q. There was a conical projection from the large casting, there, with internal radial ribs; what is that shaft?

A. That is how I accidentally discovered the air vent in the nozzle. That was put in for another purpose and it was never used for that purpose. I accidentally discovered the air vent in the nozzle through constructing it that way.

(Testimony of Wm. R. Ray.)

Q. Have you any records of when the manufacture of these parts that we have here was actually done?

A. We have records in our factory books showing dates of starting, and all the different steps we took.

Q. What date was the manufacture of this device?

A. The order for this machine was started on March 10, 1914.

Q. Can you show us the record in which that is?

A. My brother is able to do so.

Q. Just give us the order number to which this machine relates.

The COURT.—I do not see that all that detail is necessary. If it is disputed you can offer corroborating evidence.

Mr. TOWNSEND.—Very well.

Q. There is a sheet metal device. What is that?

A. That is the fan.

Q. That was used in that device? A. Yes.

Mr. TOWNSEND.—I ask that these three parts the witness has referred to, the two iron castings and fan—

A. (Intg.) There are four parts; the nozzle is detachable. [145—109]

Mr. TOWNSEND.—We will offer them as three exhibits, 21, 22, and 23.

(The parts were marked, respectively, Plaintiff's Exhibits 21, 22, 23.)

Q. Are these parts, Exhibits 21, 22, and 23, in

(Testimony of Wm. R. Ray.)

the same condition as they were at the time that you manufactured them? A. Yes.

Q. Was that device put to use or tried out?

A. That particular one, I don't know, but the next ones we built were.

Q. You did not utilize this in actual practice?

A. No.

Q. What was your next step?

A. The next step was a drawing made on September 13, 1914, which we can produce, of the next burners we manufactured.

Q. Have you the original drawings?

A. These are the original drawings.

Q. Will you just briefly explain them and tell what you know about them?

A. This drawing, here, was drawn on September 13, 1914, and illustrates—

Q. (Intg.) By whom? A. By myself.

Q. When were the figures and dates put on there, and by whom? A. At the time of the drawing.

Q. By whom?

A. By myself. This is the same drawing that was handed to the patent attorney when this case here was taken up.

Q. You mean patent 1,193,819? A. Yes.

Q. Filed November 30, 1914? A. Yes.

Mr. WHITE.—I do not see the relevancy of the history of his invention.

Mr. TOWNSEND.—They offered this Witt device, and we must show the result. [146—110]

The COURT.—Proceed with it with expedition.

A. In the first drawing, showing the burner sec-

(Testimony of Wm. R. Ray.)

tional view, we have a fan casing with two brackets which support a motor, which is directly connected to a large diameter fan with small blades and where the air is taken behind a stationary diaphragm. On the end of the same shaft is fastened a rotary or atomizing cup. This cup is in the center of an air nozzle that protrudes through the furnace lining; the air is taken centrally through one side of the blower casing and discharged centrally on the opposite side, through the nozzle, and around the revolving atomizer. The second sheet of drawings was drawn primarily to show the hinging of the burner, which is illustrated in the first Ray patent, bringing the oil through the hinges of the furnace plate and the blower case.

Q. What are these various brown marks like paint upon there?

A. That is the spatter from the pattern-maker's shop of shellac.

Q. In whose possession have these drawings been since made?

A. They have been in our possession.

Q. Are they in the same condition they were at the time, except for the dirt that is on them?

A. Yes.

Mr. TOWNSEND.—We offer the first of these drawings referred to by the witness as Plaintiff's Exhibit 25, and the second as Plaintiff's Exhibit 26.

(The drawings were marked, respectively, Plaintiff's Exhibits 25 and 26.)

(Testimony of Wm. R. Ray.)

Q. Did you manufacture any devices like Exhibits 25 and 26?

A. We manufactured the first burner under date of October, 1914, and two under date of December 31, 1914, which are shown in our shop factory books.

Q. Did you make any others in 1914?

A. That is all in 1914.

Q. I thought there was one on December 31st?

A. December 31st [147—111] there were two.

Q. Then you had five of these burners?

The COURT.—He said the first time there were two on December 31st. You may straighten it out.

A. There were four, counting the original one.

Q. You mean with the original model?

A. Yes, the original sample exhibit and then the next we put on the furnace and two that we sold.

Mr. TOWNSEND.—Q. Were there any built in November? Did you give the November one?

A. There is no November that I have a record of.

Q. I think your books will show that, but that is immaterial. Did you put these into use after you manufactured them in 1914? A. Yes, we did.

Q. What was the success or otherwise of these?

A. The first one we sold was to the Standard Oil Company, on the steamer "J. A. Moffitt." This burner is still in operation. The second burner we sold was to the Reichardt Duck Company, here at Colma, California. That burner is still in operation.

(Testimony of Wm. R. Ray.)

Q. Are you still continuing to manufacture rotary burners of this character? A. Yes.

Q. To what extent? Have you the records?

Mr. WHITE.—The question is objected to as being indefinite, if your Honor please, in that this drawing here discloses a burner having a cup such as disclosed in the first patent in suit, and, as I understand it, the machines being sold by the plaintiff for some years last past retain the form of cup disclosed in the second patent in suit, so I do not care to have this question embrace both devices.

Mr. TOWNSEND.—It is utterly immaterial. The defendant is making this identical cup that we did in that patent. [148—112]

The COURT.—I did not quite catch your objection. What do you mean?

Mr. WHITE.—The objection is this: he asked the witness to what extent they had sold this type of burner. Now they are suing on two patents, the constructions of which are different. I do not want the general sale of burners by them to redound to the benefit of both patents when one burner sold by them differs in construction from the construction in the other of the patents. If they are relying on the general use of the device shown on the first patent, they should show the extent of that, if they are relying on the general sale of the type of the burner disclosed in the second patent, they should show the extent of that.

The COURT.—The objection is overruled.

Mr. TOWNSEND.—You may explain that, Mr. Ray.

(Testimony of Wm. R. Ray.)

A. I thought they admitted yesterday that there is no difference in the way we put the oil into the cup. That is the only difference between the two devices.

Q. Proceed and answer the question, to what extent have you put your rotary burners of the type shown in the patent in suit, and in the device Exhibit 7 before you, on the market?

A. In the way of sales?

Q. Yes.

A. In 1915 there were 55 burners sold, representing a net price of \$6,234; in 1916, 276, representing \$35,668; in 1917, 358, representing \$53,671.71; in 1918, 310, representing \$49,661.54; in 1919, 572, representing \$93,031.55; in 1920, 826, representing \$136,099.22; in 1921, 719, representing \$116,813.35; in 1922, 1468, representing \$221,988.60; in 1923, 2982 burners representing \$465,150.36, a total of \$1,178,318.98.

Q. A total of how many burners?

A. I have not got the total number of burners.
[149—113]

Q. What investment in plant have you for the manufacture of these burners at the present time?

A. About \$300,000.

Q. Most of that has been put in since what time?

A. During the last four or five years.

Q. Did you exhibit these burners at the Panama-Pacific Exposition in 1915? A. Yes.

Q. Did you advertise them at that time?

A. We did.

(Testimony of Wm. R. Ray.)

Q. Have you any such advertisements that you put out at that time?

A. We have a circular that was distributed at the Panama-Pacific Exposition.

Q. Do you know when that circular was gotten out?

A. It was gotten out at the end of 1914, or very early in 1915.

Q. Is this one of the original circulars?

A. Yes.

Mr. TOWNSEND.—I offer this circular in evidence as Plaintiff's Exhibit 27.

(The document was marked Plaintiff's Exhibit 27.)

Q. Did the predecessor of the defendant exhibit at the Panama-Pacific Exposition? A. It did.

Q. What was the name of that concern?

A. American Standard Oil burner Co.

Q. How near to your exhibit was theirs?

A. Well they were in the same section, about 70 feet south.

Q. Did any of the officers or employees or engineers of the defendant's predecessor see the Ray burner?

A. Yes, they came in quite often, and Mr. Beecher and Voskueler, their engineer, made us numerous visits.

Q. Did they eventually acquire, so far as you know, one of your rotary burners?

A. To my knowledge they did.

Q. When was that?

(Testimony of Wm. R. Ray.)

A. It was in September, 1915.

Q. Up to that time had the defendant's predecessor or the defendant ever put out a rotary horizontal burner, to your knowledge? [150—114]

A. I had never seen any, to my knowledge.

Q. How long after that did they put out a burner of that type?

A. The first burner of that type I seen was at the Panama-Pacific Exposition in late October.

Q. I meant to ask you how extensive is your business in these rotary burners territorially? Is it confined to California, or what?

A. No, we are selling them all over the world at the present time, and have our own branch in Chicago, and in Oakland, and here. The rest of the distributors are financed by themselves. We have distributors in every large city in the United States, in Mexico, Alaska, Hawaiian Islands, and in England, France and Norway.

Q. Do you publish catalogs in more than one language?

A. We publish catalogs in Spanish and in French.

Mr. TOWNSEND.—That is all.

Cross-examination.

Mr. WHITE.—Q. How many burners did you or your company make embodying the type of cup disclosed in the first patent in suit, No. 1,193,819, and which cup has the rearwardly-projecting flange?

(Testimony of Wm. R. Ray.)

Mr. TOWNSEND.—I submit, your Honor, that is entirely irrelevant and immaterial.

The COURT.—It is cross-examination; he may answer.

A. As near as I can remember, about 24.

Mr. WHITE.—Q. And all the balance of the burners referred to as having been made by your company embodied the type of burner head disclosed in the second patent in suit, and embodied in this Exhibit No. 7: Is that correct?

A. There is no difference in the burner head, aside from entering the oil through the hollow shaft.

Q. Is that correct? Please answer the question.
[151—115]

The COURT.—He disputes the conclusion embodied in your question. He says the burner heads are the same, but the oil is circulated differently.

Mr. WHITE.—Q. Do you mean in this Exhibit 7 the burner head is not divided into two compartments, the oil being fed into the rear compartment formed by the rearwardly-projecting flange?

A. Yes.

Q. Isn't the oil in this burner Exhibit 7 fed into the front compartment?

A. There is only one compartment in this.

Q. In other words, the burner in this Exhibit 7 is the type of burner disclosed in the second patent in suit: Is that correct? A. Yes.

Q. And in all of these other burners, with the exception of the 24 you have mentioned, you embodied this burner of the type shown in that second patent in suit: Is that correct? A. Yes.

(Testimony of Wm. R. Ray.)

Q. As I understand it, the American Standard Oil Burner Company had on exhibit at the 1915 Fair a type of this burner, Plaintiff's Exhibit 1: Is that correct? A. No, not like that.

Q. When did you first see one of the burners of this type?

A. I believe in the latter part of 1916.

Q. As I understand you, whether you used in your burner Exhibit 7 this type of burner head shown in the second patent or the type of burner head shown in the first patent, no different result is effected?

A. As far as combustion is concerned, no.

Q. The mode of operation of the two devices is the same whether you have one type of burner in there or the other?

A. As a matter of introducing the oil, it is immaterial as far as combustion is concerned.

Mr. WHITE.—That is all.

Redirect Examination.

Mr. TOWNSEND.—Q. You said that the burner of the American [152—116] Standard Oil Burner Company was put on exhibition at the Fair at the end of 1915, after seeing your burner. Was it any different from Exhibit 1? A. Yes.

Q. In what particular?

A. Well, it embodied a large fan, the atomizing cup, and the hinging principle, except that it was driven by a belt, instead of directly connected as per this exhibit.

Q. By belt driven, you refer to the construction

(Testimony of Wm. R. Ray.)

illustrated in the "Architect and Engineer" of November, 1915, Plaintiff's Exhibit 20, on the inside of the back cover? A. Yes.

Q. Also as shown in the enlargement which I show you? A. Yes.

Q. Taking one of defendant's predecessors' catalogs, is there any difference in principle in this structure of fan, atomizer, oil feed, etc., where it is directly connected, or where it is belt-driven?

A. The first machine that I seen in the Panama-Pacific Exposition got the same result that we did with our machine, only applying the application of power in a different way.

Q. In a different way? A. Yes.

Mr. TOWNSEND.—I offer this enlargement in evidence as Plaintiff's Exhibit 28.

(The enlargement was marked Plaintiff's Exhibit 28.)

Mr. WHITE.—I have one more question.

Q. In these 24 machines built by your company and embodying the oil cup shown here in the first Ray patent in suit, how was the oil carried to the burner?

The COURT.—You are confusing the terms, or at least confusing the Court. By "burner," do you mean the whole structure or only the cup?

Mr. WHITE.—The whole mechanism.

The COURT.—That is what you mean when you say "burner"? [153—117]

Mr. WHITE.—Yes.

The COURT.—What is your business now?

(Testimony of Wm. R. Ray.)

Mr. WHITE.—Q. In these 24 machines built by you and embodying this burner cup shown in the first Ray patent in suit, how was the oil conducted to the burner?

A. It was conducted through the hinges as per exhibit drawing.

Q. Your first patent does not show that construction, does it, the conduit through hinges?

A. No.

Mr. WHITE.—That is all.

Mr. TOWNSEND.—That is all.

TESTIMONY OF R. S. WHALEY, FOR PLAINTIFF (RECALLED IN REBUTTAL).

R. S. WHALEY, recalled for plaintiff, in rebuttal.

Mr. TOWNSEND.—Will you please state what experience, if any, you have had in the study of patents?

A. My greatest experience in the study of patents was during the war, when many hundreds of inventions came out that the Government was anxious to get to help win the war; and to facilitate the passage through the Patent Office of those that were meritorious, they established throughout the country various boards that examined all of these.

The COURT.—Come briefly to the point.

A. I was on one of these boards that examined hundreds of these inventions and passed on those that were feasible.

Mr. TOWNSEND.—Q. Have you examined the plaintiff's patents in suit? A. I have.

(Testimony of R. S. Whaley.)

Q. And the defendant's King patent.

A. I have.

Q. And the various patents offered in evidence by the defendant? A. I have.

Q. Will you kindly examine these patents now and briefly summarize your conclusions in regard to the relationship that any [154—118] of the patents relied upon by the defendant bear to the plaintiff's patents in suit, and make such comment as you desire as to the practicability of the various patents referred to.

A. I have examined thoroughly the patents offered by the defendant in this suit.

Q. Let me add one thing: It appeared yesterday on the cross-examination of Mr. De Laney I did not have a copy of the Klein patent before me, so I neglected to interrogate him on that. So I want you to refer to the Klein patent, as well as the others.

A. As a matter of information, I must preface my remarks with a short statement. Oil burning is accomplished by five different methods. The methods that we are interested in here are the methods using a rotary atomizer. The atomization of oil by the rotary method is divided into three different and distinct types. You cannot transfer one of these types to the other with success. The three types are the vertical type, which can be subdivided into two smaller classes, an atomizing cup and fan, and a motor all on one shaft. The vertical type of burning oil is entirely different from the horizontal

(Testimony of R. S. Whaley.)

type of burning oil; a different principle is involved. If given a sufficient time I could explain that. The horizontal type of burning oil is differentiated in two distinct types, one where the agent that actuates the atomizing cup is a blast of air blown against a turbine or a fan. That device is entirely different from one where the agent that turns the atomizing cup and the fan is all on one shaft, for this reason, that where the fan and the atomizing cup are on the same shaft driven directly by the motor, and the air used for atomization can be controlled independently from the rotation of the atomizing cup. Where the atomizing cup is actuated by a device that requires [155—119] air to be blown through a turbine to turn it, if you diminish the amount of air actuating the turbine you slow down the speed of your atomizing cup and as a result you lose the efficiency of the atomizing cup. Therefore, in that type of burner, it is impossible to adjust the amount of air for atomization, and, therefore, you cannot accomplish the result that you can with a device where the motor, and fan, and atomizing cup are all on the same shaft. In the oil-burner business, these two types of burner are separate and distinct, as a buggy from an automobile. They are not used in the same manner. The automatic control of the air and oil cannot be applied to the type where the atomizing cup is driven by a blast of air. When you eliminate these patents cited where a different method is used for atomizing the oil and obtain a new result, you nar-

(Testimony of R. S. Whaley.)

row the thing down to just these two devices, the Simplex device and the Ray device. Citing the Klein burner as an instance, it has a burner of the same diameter as the atomizing cup. It is known from experiments made, not only by myself, but by others, that a fan not of this type, but even the high pressure blower type must be at least seven times the diameter of the atomizing cup to drive a sufficient force of air across the film of oil leaving the periphery of the cup, and to divert its direction approximately in line with the axis of rotation. The fan in the Klein burner is of the propulsion type, and it delivers a large volume of air at low pressure. This fan, having the same diameter as the atomizing cup, it would be impossible in the Klein burner to drive enough air at low pressure around the periphery of the cup to change the direction of the oil vapor coming off the periphery of the cup. My opinion of the Klein burner is that it would not operate successfully.

Q. Just take up the other patents for discussion and group them [156—120] as you desire.

A. The first patent is the Cook patent—

Q. Give the number.

The COURT.—As long as he gives the name it is sufficient; they are all identified in the record now.

A. The Cook patent has no fan, and relies upon the induction of air by the natural draft of the chimney, or by forced draft from some exterior agent to furnish air for combustion. He relies for atomization entirely upon the centrifugal action of

(Testimony of R. S. Whaley.)

the cup. This burner would not operate for all the high pressure air or steam is blown in with the oil and the oil broken up in that manner and the air for combustion induced by the natural draft of the chimney or forced draft. It applies to an entirely different type of burner than the two burners in question.

The Kinney patent is a steam jet air induction device or smoke-consuming furnace, and not a burner at all.

The Collins patent is a jet type of burner. The cup A in Fig. 2 is not an atomizing cup; it is simply a superheating device for heating oil in a jet type of burner, and does not rotate at all.

The Leyson patent is merely a water-jacketed door for keeping a furnace door cold. It is not an oil-burning device.

The Eddy patent—

The COURT.—There are two Eddy patents.

A. The Eddy patent No. 54,650 is a type of burner where the air is brought from an exterior source, and the atomizing cup driven from a pulley on the shaft. It is well known from experiments by myself and others that an atomizing cup with an angle of divergence such as that cup S, the oil pouring through that cup would not take the rotation of the cup, but would pour off the cup. The cup must be more nearly horizontal, so that the oil [157—121] would be picked up by the rotation of the cup, to be atomized.

The second Eddy patent, No. 54,651, is a device

(Testimony of R. S. Whaley.)

where the power for rotating the atomizing cup is supplied by a blast of air from an exterior source. This blast of air must be held at a constant pressure, so that the atomizing cup will be held at a constant speed. If you reduce the air pressure you slow the cup down and the oil is not atomized and your fire goes out. That device does not belong to the same system of burning oil as the two burners here in question.

The COURT.—How do you change the volume or pressure of air in this device without slowing down the cup?

A. The cup turns at a constant speed with the motor. The air intake to the fan is adjustable, and the amount of air going into the fan can be changed; that is one of the most important things in the burning of oil, to get a mixture of oil and air in proper quantities, and this is the device that is able to do that.

Mr. TOWNSEND.—By “this is the device,” you are referring to the plaintiff’s device?

A. Yes.

The Mack patent has a fan and an atomizing cup, but at a glance it is evident to anyone familiar with the burning of oil that the burner would not operate for more than a period of a few hours before the holes E through the chamber D, surrounding the atomizing cup, would be plugged with carbon and oil and passage of air from the fan to this atomizing cup stopped. These passages for air between the fan and this atomizing chamber are so proportioned

(Testimony of R. S. Whaley.)

that the high velocity of the air from the fan would be lost unless a tremendous force were applied to the fan.

The Hamman and Voegeli patent is merely a forced draft fan for blowing air in over a coal fire to supply a forced draft. [158—122] It has nothing to do with the burning of oil.

The Thom patent is a patent merely for making a pipe-line flexible with several joints. It is a jet type of burner, as far as the burner goes, and has no relation to this type of burner in question.

The J. W. Anderson patent shows a jet type of oil burner, having two hinges, with the oil and steam coming through the different hinges, with a stuffing box on each hinge. The burner is a jet type of burner, and applies to an entirely foreign type of oil burner than the ones in question here.

The Gibbs patent is a vertical type of burner. The agent for atomizing the oil is entirely a flat plate, and the oil is run out on this flat plate, and the atomizing is accomplished entirely by centrifugal force. A large diameter of plate or cup must be used because to get sufficient force on the centrifugal action only, you have a large radius, because the centrifugal force is directly proportional to the square of the radius.

The Gordejef patent is simply a jet type of oil burner, and not comparable with this type of burner in question at all. This Gordejef patent has swivel joints on the pipe-line leading to the burner.

The Hamman patent, No. 799,560, is simply an

(Testimony of R. S. Whaley.)

induced draft apparatus. It has nothing to do with the burning of oil at all, simply a fan actuating a steam turbine. That fan would have to be used as a forced draft apparatus instead of induced draft apparatus.

The S. F. Johnson patent has a fan with a number of blades or fingers on it, and the oil is sprayed against these blades and blown into the furnace. This device would not be successful. It is apparent to everyone familiar with oil burning that the device [159—123] would not operate and is not comparable in any way with the two devices in question.

The Britten patent is a vertical type burner, which puts it in an entirely different class, because it works on a different principle from the burners in suit. The atomizing device is a fan blade, and not an atomizing cup at all, and works on an entirely different principle than the two burners in question.

The Fesler patent is perhaps the first case of vertical type of oil burning. It operates on the principle of atomizing the oil entirely by the centrifugal force, the air supplied being for use only for combustion. The air travels in the same direction as the flow of oil from the atomizing device, and it does not assist materially in atomization, but is used only for combustion. The atomization is entirely accomplished by the rotation of the centrifugal head. That is one of the differences between a horizontal and a vertical burner.

The Gordin patent has a fan device for atomizing the oil which is splashed on the blades of the

(Testimony of R. S. Whaley.)

fan vertically, and not in any way comparable with the oil burners here in question.

The J. H. Becker horizontal burner patent shows two gears for picking up the oil and a propulsion fan behind for in theory blowing the oil which these two gears splash up into the fire-box. The device, on its surface, shows that it will not operate for any length of time, for the reason that the oil, after being picked up by the gears, will be recondensed by being blown against the inside of the tube, which converges at its front end. This condensation takes place because that if the oil after being atomized comes in contact with a cold surface it will immediately condense from a vapor into oil again. So the device is inoperable for that reason.

The J. H. Becker centrifugal burner patent No. 1,101,779, is a [160—124] vertical oil burner, and the oil is introduced into a rotating cup. I put more time on this because it seems to be more in point with the burners here in question.

The oil is introduced into the bottom of the cup and raised to the periphery of the cup and thrown off by the centrifugal force of its rotation. The fan is of the same diameter as the cup, or practically so. It will not operate on the principle of these two burners in question for the reason that experiments have shown, not once but many times, that a fan of even higher velocity than this type will not blow sufficient air to catch the film of oil unless the fan is at least seven times the diameter of the atomizing cup, because the force of the oil coming off the

(Testimony of R. S. Whaley.)

atomizing cup is greater than the force of the air blown by the fan; of course, a very small quantity of oil or a few drops might be caught by the air from the fan, such as this. A burner of this type produces a saucer-shaped flame.

Mr. TOWNSEND.—Q. What have you to say about Mr. De Laney's suggestion yesterday if you ran that fan fast enough you might get an air draft that would do that?

A. There is a limit beyond which you cannot drive a fan, because the efficiency of a fan is immediately lowered as soon as the critical speed is exceeded, which means that the fan, at this high speed, would merely slip around in the air and not discharge any large quantity of air. This fan of that diameter could not be driven at high enough speed to atomize a film of oil thrown from a cup of this large diameter, unless the delivery of the air were of such tremendous volume that it would blow out the fire, because that type of fan delivers a large volume and a small pressure. The reason the fire is blown out by a large volume of cold air is that the temperature of the [161—125] combustion chamber or flame is lowered below the point of combustion.

The W. M. Britten patent has a vertical type of oil burner, with the atomizing agent a splash fan. It is not comparable in any way with these two oil burners in question.

The M. A. Fesler patent, No. 1,113,108 is of the vertical type of oil burner, and the atomization is accomplished by the centrifugal force of the cup,

(Testimony of R. S. Whaley.)

and none of the air blown in is for atomization, but for combustion only. The oil from the cup makes a saucer-like flame. In this particular patent the cup is double, made of two parts, so that a large amount of oil can be atomized. That patent, however, applies to the vertical type of oil-burning apparatus, entirely different in principle from the devices in question.

The W. E. Shore patent is a superheating device for furnaces; it has nothing to do with atomization or burning of oil. It has, however, a swivel joint on the air pipe-line going to the superheater.

Q. Have you the King patent there?

A. I might say, saving a little time while you are looking for that patent, that these differences in the method of burning oil are recognized by everyone in the oil burning business, and they do not consider them comparable in any way. The vertical type of oil burner works on an entirely different principle from the horizontal type of burner.

Q. Just give us your comments on the King patent.

A. The J. H. King patent is a vertical type of oil burner, relying for the atomization of the oil entirely upon the rotation of the atomizing cup; the lip 14 on the top of the atomizing cup diverts the stream of air away from getting across the film, and directs it in a direction the same as the discharge [162—126] of the oil from the cup, and will make a saucer-like flame, and could not be used in a horizontal position and a fire made with this

(Testimony of R. S. Whaley.)

King device such as is made by the two burners here in question. The fan on the King burner is a propulsion type of fan, which delivers a large volume of air at low pressure, which is used for combustion only, and assists in no way in the atomizing of oil. It applies, in the first place, to the vertical type of oil burner, which is entirely different in principle.

Q. Have you examined the so-called King drawing of August 3, 1911, Defendant's Exhibit "EE"?

A. I have not seen it yet, but I can examine it.

Q. Will you kindly look that over, and, assuming such a structure, make your observations upon it?

A. I take it that this is a sketch of the model here in evidence?

Q. Yes.

A. I can say this in regard to this device, as an oil burning device, that it must rely upon the action of the cup for the atomization of the oil, for the reason that a fan of the type shown and of the diameter that would go in here, compared to the diameter of the atomizing cup—

Q. (Intg.) By "in here," you mean Model "FF"?

A. Yes. The diameter of the fan that would go in the casing shown in model Plaintiff's Exhibit "FF" is so small that it would be impossible for it to deliver enough air at sufficient pressure to atomize oil thrown from the periphery of an atomizing cup of the large diameter shown in Plaintiff's Exhibit "FF." This type of fan shown on the sketch marked Exhibit "EE" is of a propulsion type, which will deliver a large volume of air at

(Testimony of R. S. Whaley.)

very low pressure, and could not at any velocity supply sufficient air to atomize the oil thrown from a cup of the size in the model "FF." The atomization of the oil in this model would, for that reason, have to rely entirely upon the centrifugal force of the rotation [163—127] of the cup, and, therefore, it is not comparable with either of the devices of the plaintiff or defendant here in question.

Q. Now, do you find the combination of the parts that appear in either the defendant's structure or the plaintiff's structure, for instance, the diaphragm, or fan casing?

A. This device has no diaphragm or fan casing along the same line as the defendant's device or the plaintiff's device, and should they put a diaphragm with this type of fan it would utterly defeat the object of the fan, because this is not a centrifugal blower fan, it is a propulsion fan that throws a blast of air in line with the axis of rotation. The centrifugal blower such as used here in the device in question throws a blast of air in a direction normal to the axis of rotation. If you put a diaphragm in front of that propulsion fan it would utterly defeat the object of that fan.

Q. I understand that drawing EE shows no diaphragm?

A. No, there is no diaphragm shown here.

The COURT.—What do you refer to by the diaphragm, what some have spoken of as a baffle?

A. As a baffle, yes.

The COURT.—I understand now.

(Testimony of R. S. Whaley.)

A. This baffle here, No. 3. If you put a baffle of that kind in front of a fan of this type it would utterly defeat the object of the fan, because the direction of the air would be directed against the face of the diaphragm.

Mr. TOWNSEND.—That is all.

Cross-examination.

Mr. WHITE.—Q. Referring now to the first Ray patent in suit, I would like you to state if in the operation of that device you have sufficient air being discharged from the air nozzle to prevent the oil thrown off from the centrifugal burner-head striking the side of the walls of the air nozzle, would you [164—128] then have air under a sufficient pressure to operate that device?

A. The proportions between the cup and the fan seem to be about right; it should be about one to seven to do it successfully; from that, it can vary slightly.

Q. In the operation of this Ray device shown in the first Ray patent, where you have air under sufficient pressure to cause the oil to be discharged in a line parallel with the axis of rotation, would you say that the air is under sufficient pressure to practically and successfully operate the device? Would that be a test of the pressure?

A. I do not get the object of your question; I do not follow you. What are you trying to get at?

Q. I want to find out whether air capable of changing the direction of the discharged oil suffi-

(Testimony of R. S. Whaley.)

cient to make the oil discharged from the cup go in a line parallel to the axis of rotation, whether it is under sufficient pressure to operate the device successfully? A. Yes.

Q. Have you given your testimony here upon the theory that patent drawings are made to scale?

A. No.

Q. You have given your testimony upon the assumption that they are not made to scale, and that the patents are directed to those skilled in the art, haven't you?

A. I have examined each of the patent drawings on the assumption that they are not drawn to scale.

Q. Where the patentee in the specifications in any one of these patents states that the air must be of sufficient pressure to accomplish a specific result, would anyone skilled in the art, in attempting to practice that patentee's invention, make a fan giving such an air current and such an air pressure as would accomplish that result? Would that be a matter of mechanical skill?

A. The success or failure of the device would [165—129] depend upon whether the patented device was capable of delivering that pressure. Whether it would or not is a different question. If the device were capable of delivering air at the proper pressure, it would be a successful device, otherwise it would not.

Q. Where the patentee sets forth in the operation of the device he must have air of sufficient pressure to do certain things, any ordinary skilled mechanic

(Testimony of R. S. Whaley.)

in attempting to practice that patentee's invention would use in connection with the invention a fan sufficient to develop such an air pressure?

A. That would be impossible in many cases, because it would entirely change the design of the patent.

Q. It would change the entire design?

A. Yes, the entire design.

The COURT.—Do I understand these drawings are not to scale?

Mr. WHITE.—No, they are not.

Mr. TOWNSEND.—Not exactly to scale, but they are often made from working drawings.

The COURT.—I assumed naturally if a drawing was placed on there it would be drawn to a certain scale.

Mr. WHITE.—No, there is no attempt ever made, so far as I know, to make patent drawings to scale.

Q. What have you to say in regard to the efficiency of this cup that you find in the Becker exhibit with respect to its shape or form?

A. You wish my opinion in regard to the efficiency of that, the shape of the cup?

Q. Is that a practical oil-burning cup?

A. At relatively slow speed, the cup would pick it up and drive it off centrifugally. At higher speeds the pitch of the cup is too great to pick up the oil. To drive the fan on that same shaft with sufficient speed to deliver any great quantity of air would necessitate driving the cup at such a terrific

(Testimony of R. S. Whaley.)

speed that it would [166—130] utterly defeat its object.

Mr. WHITE.—That is all.

Redirect Examination.

Mr. TOWNSEND.—Q. Is the defendant's device, and is the plaintiff's device supposed to be or known as a high speed rotary burner? A. Yes.

Mr. TOWNSEND.—That is all.

The COURT.—Your next witness.

Mr. TOWNSEND.—That concludes the plaintiff's case. I have just two things to offer, your Honor; one is a photostat of the particular references cited in connection with the King patent referred to in the file wrapper. I have here the publication, "Naval Liquid Fuel Report" that was referred to, and ask that it be received as Plaintiff's Exhibit 29.

The COURT.—What is this, did you say?

Mr. TOWNSEND.—That is a citation by the patent office in connection with the King patent, relied upon and set up in the counterclaim of the defendant.

The COURT.—A citation to some other patent?

Mr. TOWNSEND.—Yes, a citation to the patent of defendant in suit.

The COURT.—Very well.

Mr. WHITE.—That is only offered in evidence to show the state of the art?

Mr. TOWNSEND.—Yes.

Mr. WHITE.—Of course, there is no attack made upon the validity of the King patent.

(Testimony of R. S. Whaley.)

Mr. TOWNSEND.—It shows its limitations. Now, I would like to offer some patents to J. H. Becker and assigned to the American Heat & Power Company, predecessor of the defendant, as showing the patent activities of the defendant's predecessor [167—131] during the years of silence and inactivity from the alleged making of the King drawing in August, 1913, and until the issuance of the King patent in controversy. It is pertinent as bearing on the question of abandoned experiment and lack of due diligence. If they had the invention and were applying for patents on other devices and this invention was made before they applied for a patent, I want to show that during those years they were taking out other patents; in other words, they were not financially embarrassed. These patents are as follows:

Becker, 1,111,848, October 27, 1914, filed March 28, 1913;

Becker, 1,068,037, July 22, 1913, application filed January 21, 1913;

Becker, 989,828, of April 18, 1911, filed September 28, 1910.

Becker, 1,126,354, filed February 2, 1914, and Becker, 1,078,986, November 18, 1913, filed January 21, 1913.

We offer these collectively as Plaintiff's Exhibit 30.

Plaintiff rests.

Mr. WHITE.—Defendant rests.

* * * * *

[168—132]

ARGUMENTS.

Mr. WHITE.—In regard to the King patent, I will read, your Honor, in connection with this Ray device, claims 1 and 2. Those are the claims on which we rely:

* * * * *

Mr. WHITE.—May I just call your Honor's attention to one thing I overlooked, and that was prior invention of Ray, with respect to the cross-complaint, on the King patent, was not pleaded, and, therefore, that Ray testimony is not admissible in respect to proving invalidity of the King patent. It is only admissible in regard to carrying Ray's date of invention back on another patent we used on our main case. That is under the statute which Mr. Townsend cited.

* * * * *

[Endorsed]: Filed Mar. 28, 1924. Walter B. Maling, Clerk. By C. W. Calbreath, Deputy Clerk.
[168½]

In the Southern Division of the United States District Court for the Northern District of California, Third Division.

EQUITY—No. 689.

RAY et al.,

Complainants,

vs.

BUNTING IRON WORKS,

Defendant.

DECISION.

March 27, 1924.

CHAS. E. TOWNSEND, Attorney for Complainant.

WILLIAM K. WHITE, Attorney for Defendant.

BOURQUIN, District Judge.—Complainant Ray filed applications for patent,—one on November 30, 1914, upon which patent No. 1,193,819, issued on August 8, 1916, and one on May 8, 1916, upon which patent No. 1,285,376 issued on November 19, 1918.

These patents are for oil burners, the second practically including the first and additions, improvements, or changes.

The bill alleges infringement, and the defenses are various grounds of invalidity sufficiently noted hereinafter.

The answer includes a cross-bill, alleging ownership of an oil burner patent No. 1,158,058 issued on October 26, 1918, upon application filed on March

23, 1914, and infringement; and complainant's defenses are denials and estoppel. [169]

There is no serious conflict of fact,—none that need be stressed or resolved. The facts are mainly found in patents of record. The law involved is only of the elementals, and is settled and clear.

Patent No. 1,193,819 is primarily a combination or aggregation of elements, though perhaps sufficient for any separate element if new. Perhaps, only, for their description, even taken in the light of the claims, hardly suffices to distinguish the new from the old, the invention. See the Cornplanter case, 23 Wall. 224. That there is novelty in any part is but faintly suggested in argument.

The burner is a compact, useful, and superior machine, or instrumentality, to supply fuel oil to fire-boxes, and of extensive use. It consists of a motor, upon the horizontal rotating shaft of which are fixed a cup to atomize oil fed to it, and a fan to further atomize the oil and to force it in lineal and axial direction into the fire-box wherein it is consumed. These elements and their uses in oil burning, to say nothing of analogous uses, were old when this patent was applied for, and in aggregation they operate in function and in result as they did and do in separation.

Hence, to assemble motor, fan, and cup, with their incidents, upon a single shaft, all in simple and compact form, is not invention, but is only the ordinary and anticipated advance in the art by reason of mechanical skill and the enterprise of the manufacturer and salesman. [170]

In fact, the only objects the patent declares are "to provide in one complete unit" an oil burner of these elements, and "as free from friction as possible" by reason of few bearings,—advantages universally sought and indicative of naught but understood skillful aggregation of old elements.

The same is to be said of patent No. 1,285,376. To the aggregation of No. 1,193,819 it adds and attaches the oil supply pump, and for hinge pintles employs pipes for the oil supply, one to drain off any excess oil.

These additions also were at that time ancient in oil burners. The patents pleaded in defense and in evidence disclose every element and incident of complainant's, save the partition diaphragm or baffle in the fan casing. If this latter serves any purpose, it does not appear, nor any that the side casing of the fan blades will not serve. Hence, to insert this partition involves no invention. See the Dunbar case, 94 U. S.

Having in mind the presumption attaching to the patents, accentuated by the long drawn-out examination and proceedings in the patent office, it is clear that the established and undisputed facts disclose that these grants, in so far as their claims have been put in issue, viz., claims 3, 4, 7, 8, 9, 10, 11, and 12 of No. 1,193,819, and claims 1 to 6 and 14 to 20, all inclusive, of No. 1,285,376, are invalid. [171]

In so far as presumptions go in patent law, they function, as in other branches of law, to dictate the burden of reproducing or going forward with evidence.

In respect to defendant's patent, little has been said for or against it. It seems to be set out more as a counter-irritant, and the actual instrumentality is not in evidence. Whatever its merits, wherein complainant has infringed, if at all, is not particularized. Whether valid or not, the evidence does not prove infringement. And that only is the decision of the Court.

Decree accordingly. Costs to neither party.

BOURQUIN, J.

[Endorsed]: Filed Mar. 28, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.
[172]

In the Southern Division of the United States District Court for the Northern District of California, Third Division.

EQUITY—No. 689.

RAY et al.,

Complainants,

vs.

BUNTING IRON WORKS,

Defendant.

At a stated term, to wit, the March, 1924, term of the above-entitled Court, held at the courtroom thereof in the City and County of San Francisco, State of California, on the — day of March, 1924. Present: The Honorable GEORGE M. BOURQUIN, District Judge, Presiding.

DECREE.

This cause having heretofore come on regularly to be heard upon the pleadings and proofs, documentary and oral, taken and submitted in the cause, the plaintiffs being represented by Chas. E. Townsend, Esq., and the defendant by William K. White, Esq., and the cause having been duly argued and submitted to the Court for its decision and the Court being now fully advised in the premises, it is hereby

ORDERED AND DECREED as follows:

1. Claims 3, 4, 7, 8, 9, 10, 11 and 12 of United States letters patent No. 1,193,819, issued on August 8, 1916, to W. R. Ray for Oil Burners, which patent is one of the patents sued on herein, are and each of them is invalid and void for want of invention. Said claims No. 3, 4, 7, 8, 9, 10, 11 and 12 of said patent No. 1,193,819, are the only claims of said patent charged to have been infringed by defendant herein.

2. Claims 1 to 6, and 14 to 20, inclusive, of United States letters patent No. 1,285,376, issued on November 19, 1918, [173] to W. R. Ray for Oil Burners, which patent is the other patent sued on herein, are, and each of them is invalid and void for want of invention. Said claims 1 to 6, and 14 to 20, inclusive, of said patent No. 1,285,376, are the only claims of said patent charged to have been infringed by the defendant herein.

3. The defendant is the owner of the United States letters patent No. 1,158,058, issued on October 26, 1918, to J. H. King, sued on in the counterclaim and cross-complaint of defendant filed herein.

4. Said patent No. 1,158,058, issued to J. H. King, is not infringed by the plaintiffs.

5. The bill of complaint herein and the cross-complaint of defendant are and each of them is hereby dismissed.

6. Neither of the parties to this suit shall recover any costs herein.

Dated March 31, 1924.

BOURQUIN,
District Judge.

Approved as to form.

CHAS. E. TOWNSEND,
Solicitor for Plaintiffs.

[Endorsed]: Filed and entered March 31, 1924.
Walter B. Maling, Clerk. [174]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),
Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),
Defendant.

PETITION FOR ORDER ALLOWING AP-
PEAL.

To the Honorable Court, Above Entitled:

The above-named plaintiffs, William R. Ray and W. S. Ray Manufacturing Co., conceiving themselves aggrieved by the Decree filed and entered on the 31st day of March, 1924, in the above-entitled cause, does hereby appeal therefrom to the United States Circuit Court of Appeals for the Ninth Judicial Circuit for the reasons and upon the grounds specified in the Assignment of Errors, which is filed herewith, and prays that this Appeal may be allowed, that a citation issue as provided by law, and that a transcript of the record, proceedings, exhibits and papers, upon which said Decree was made and entered as aforesaid, duly authenticated, may be sent to the Circuit Court of Appeals for the Ninth Circuit, sitting at San Francisco.

And your petitioners further pray that an order be made fixing the amount of security which the plaintiffs, William R. Ray and W. S. Ray Manufacturing Co., shall give and furnish upon such appeal.

CHAS. E. TOWNSEND,
Solicitor for Plaintiffs.

Dated: April 1, 1924. [175]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),

Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),

Defendant.

ASSIGNMENT OF ERRORS.

Now comes William R. Ray and W. S. Ray Manufacturing Company, plaintiffs in the above cause in the court below, and appellant herein, by Chas. E. Townsend, Esq., its solicitor and counsel, and says that in the record and proceedings in the said cause in the said court below there is manifest error, and it particularly specifies as to the errors upon which it will rely and which it will urge upon its appeal in the above-entitled cause:

(1) That the District Court of the United States for the Northern District of California, Second Division, erred in dismissing plaintiffs' bill of complaint.

(2) That the District Court of the United States for the Northern District of California, Second Division, erred in finding that the plaintiffs' patent in suit No. 1,193,819, issued August 8, 1916, is lacking in novelty.

(3) That the District Court of the United States for the Northern District of California, Second Division, erred in finding that the plaintiffs' patent in suit No. 1,193,819, issued August 8, 1916, is invalid for lack of invention.

(4) That the District Court of the United States for [176] the Northern District of California, Second Division, erred in dismissing the bill as to said patent.

(5) That the District Court of the United States for the Northern District of California, Second Division, erred in holding that the plaintiffs' patent in suit No. 1,285,376, of November 19, 1918, is invalid for lack of novelty.

(6) That the District Court of the United States for the Northern District of California, Second Division, erred in holding that the plaintiffs' patent in suit No. 1,285,376, of November 19, 1918, is void for lack of invention.

(7) That the District Court of the United States for the Northern District of California, Second Division, erred in dismissing the bill of complaint with respect to said patent.

(8) That the District Court of the United States for the Northern District of California, Second Division, erred in failing to find said patents, and each of them, valid and infringed.

(9) That the District Court of the United States for the Northern District of California, Second Division, erred in not awarding costs to the plaintiffs.

In order that the foregoing Assignment of Errors

may be and appear of record, the plaintiffs present the same to the Court, and prays that such disposition be made thereof as in accordance with the law and statutes of the United States in such cases made and provided.

All of which is respectfully submitted.

CHAS. E. TOWNSEND,
Solicitor for Plaintiffs.

Dated: Apr. 1, 1924.

[Endorsed]: Filed Apr. 5, 1924. Walter B. Mal-
ing, Clerk. By J. A. Schaertzer, Deputy Clerk.
[177]

In the Southern Division of the United States Dis-
trict Court for the Northern District of Cali-
fornia, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFAC-
TURING CO. (a Corporation),

Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),

Defendant.

ORDER ALLOWING APPEAL.

The foregoing petition for appeal is allowed upon the petitioners filing a bond in the sum of Three

Hundred Dollars (\$300.00), with sufficient sureties, to be conditioned as required by law.

BOURQUIN,
Judge.

Dated: April 1, 1924. [178]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),

Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),

Defendant.

BOND ON APPEAL.

KNOW ALL MEN BY THESE PRESENTS: That we, William R. Ray, individually, and W. S. Ray Manufacturing Co., a California corporation, as principal, and the Fidelity and Deposit Co. of Maryland, a corporation created, organized and existing under and by virtue of the laws of the State of Maryland, as surety, are held and firmly bound unto the above-named appellee, Bunting Iron Works, a corporation, in the sum of Three Hundred Dollars (\$300.00), in lawful money of the United States of America, for the payment of which well and truly to be made unto the said appellee, its suc-

cessors and assigns, we bind ourselves, our successors and assigns, jointly and severally, firmly by these presents, conditioned that

WHEREAS, on the 31st day of March, 1924, in the Southern Division of the United States District Court for the Northern District of California, Second Division, in a suit pending in that court, wherein William R. Ray, individually, and W. S. Ray Manufacturing Co., were the plaintiffs and the [179] said Bunting Iron Works, was the defendant, numbered on the Equity Docket as 689, a decree was rendered, which in part was against the said William R. Ray and W. S. Ray Manufacturing Co., and

WHEREAS, said William R. Ray and W. S. Ray Manufacturing Co., having obtained an appeal to the United States Circuit Court of Appeals for the Ninth Circuit, to reverse a portion of the said Decree, which said Decree was entered in the United States District Court on the 31st day of March, 1924, and an appeal allowed, and citation directed to the said appellee, citing and admonishing it to be and appear at a session of the United States Circuit Court of Appeals for the Ninth Circuit.

NOW, THEREFORE, the condition of this obligation is such that if the above-named appellants shall prosecute said appeal to effect and answer all costs, if they fail to make their plea good, then the above obligation to be void; else to remain in full force and virtue.

Dated April 5, 1924.

WILLIAM R. RAY,
W. S. RAY MANUFACTURING CO. (Seal)

By WILLIAM R. RAY,
President,

MILTON S. RAY,
Secretary.

FIDELITY AND DEPOSIT CO. OF
MARYLAND. [Seal]

By C. K. BENNETT,
Attorney-in-Fact.

Attest: E. K. AVELON,
Agent.

Approved:

BOURQUIN,
Judge.

[Endorsed]: Filed Apr. 5, 1924. Walter B. Mal-
ling, Clerk. By J. A. Schaertzer, Deputy Clerk.
[180]

In the Southern Division of the United States Dis-
trict Court for the Northern District of Cali-
fornia, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFAC-
TURING CO. (a Corporation),
Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),
Defendant.

ORDER ALLOWING WITHDRAWAL OF
ORIGINAL EXHIBITS.

On motion of Chas. E. Townsend, Esq., solicitor for plaintiffs, and good cause appearing therefor, it is by the Court now ordered:

That all the exhibits in the above-entitled case, both plaintiffs' exhibits and defendant's exhibits, including models, drawings, copies of patents, books and printed publications, and which are impracticable to have copied or duplicated, be, and they are hereby allowed to be withdrawn from the files of this Court in said case and transmitted by the Clerk of this Court to the United States Circuit Court of Appeals for the Ninth Circuit as a part of the record upon appeal for the plaintiffs herein to the said Circuit Court of Appeals; said original exhibits to be returned to the files of this Court upon the determination of said appeal by said Circuit Court of Appeals.

BOURQUIN,
Judge.

Dated: April 1, 1924.

[Endorsed]: Filed Apr. 1, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.
[181]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

IN EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),
Plaintiffs,

vs.

BUNTING IRON WORKS (a Corporation),
Defendant.

PRAECIPE FOR TRANSCRIPT ON APPEAL.

To the Clerk of the United States District Court:

Please incorporate the following papers, documents and exhibits in the transcript of record on appeal in the above-entitled cause, omitting title of cause and omitting copying of all documentary exhibits, as specified below:

- (1) Bill of complaint.
- (2) Answer of defendant.
- (3) Answer of plaintiff to counterclaim.
- (4) Memo opinion of District Judge Bourquin.
- (5) Interlocutory Decree dated March 31st, 1924.
- (6) Transcript of the evidence in the exact words of witnesses, and all proceedings at the trial of said cause.
- (7) Petition for order allowing appeal.
- (8) Order allowing appeal.
- (9) Assignment of errors.

- (10) Order allowing withdrawal of original exhibits.
- (11) All original exhibits in the case. [182]
- (12) Bond on appeal.
- (13) Citation of plaintiff-appellee.
- (14) Praecipe for transcript on appeal.

CHAS. E. TOWNSEND,
Solicitor for Plaintiff-Appellant.

Dated April 1, 1924.

Service of copy of the within praecipe for transcript on appeal made by leaving a copy at the office of Wm. K. White, solicitor for defendant, appellee, Crocker Bldg., San Francisco, California, this 5th day of April A. D. 1924.

WM. S. GRAHAM,
For CHAS. E. TOWNSEND,
Solicitor for Plaintiff.

[Endorsed]: Filed Apr. 5, 1924. Walter B. Mal-
ing, Clerk. By J. A. Schaertzer, Deputy Clerk.
[183]

[Title of Court and Cause.]

DEFENDANT AND CROSS-COMPLAINANT
BUNTING IRON WORKS' CONDENSED
STATEMENT OF THE EVIDENCE UN-
DER EQUITY RULE 75, ON APPEAL OF
SAID DEFENDANT AND CROSS-COM-
PLAINANT.

This cause came on regularly for trial and final hearing on the 12th day of March, 1924, in the above-entitled court held in the City and County of

San Francisco, State of California, before Honorable George M. Bourquin, United States District Judge for the District of Montana; siting by special appointment to hold court in the above-entitled court, Charles E. Townsend, Esq., appearing as attorney for plaintiffs and cross-defendants and William K. White, Esq., appearing as attorney for defendant and cross-complainant, and thereupon the following proceedings were had.

It was stipulated that the corporation parties, to wit: W. S. Ray Manufacturing Co. and Bunting Iron Works, were and are corporations as alleged in the pleadings herein.

It was stipulated that defendant and cross-complainant Bunting Iron Works was and is the sole owner of United States letters patent No. 1,158,058, issued on October 26, 1915, for "Centrifugal Burner," together with all causes of action for the past infringement thereof, as alleged in the cross-complaint of Bunting Iron Works.

It was stipulated that uncertified Patent Office copies be received in evidence with the same force and effect as though the originals thereof and that the respective filing dates of the applications therefor appearing thereof be deemed proof of such dates.

Thereupon counsel for defendant and cross-complainant, Bunting Iron Works, offered in evidence such a copy of said United States letters patent No. 1,158,058 and the same was admitted and received in evidence and marked Defendant's Exhibit "Z"

and said exhibit is hereby referred to and by [184] this reference thereto made a part hereof.

Counsel for defendant and cross-complainant offered in evidence a catalogue of cross-defendant W. S. Ray Manufacturing Co. and the same was admitted in evidence and marked Defendant's Exhibit "A" and said exhibit is hereby referred to and by such reference thereto is made a part hereof.

It was stipulated that within six years prior to the filing of the cross-complaint herein and prior to the filing of the complaint herein and within the State of California, plaintiffs and cross-defendants William R. Ray and W. S. Ray Manufacturing Co. made and sold oil burner devices as disclosed, illustrated and described in said catalog Defendant's Exhibit "A."

Counsel for defendant and cross-complainant offered in evidence a certified copy of the complaint, answer and order of dismissal in the suit brought in the above-entitled court and entitled "American Standard Oil Burner Co. vs. W. S. Ray Manufacturing Co., No. 239—In Equity," and the same were admitted and received in evidence and marked Defendant's Exhibit "KK," and said exhibit is hereby referred to and by such reference thereto is made a part hereof.

Counsel for plaintiffs and cross-defendants offered in evidence a certified copy of the file-wrapper and contents of United States letters patent No. 1,158,058, issued October 25, 1915, for "Centrifugal Burner" and the same was admitted and received in evidence and marked Plaintiffs' Exhibit 6 and

said exhibit is hereby referred to and by such reference thereto is made a part hereof.

Counsel for plaintiffs and cross-defendants also offered in evidence Plaintiff's Exhibit 29 and the same was admitted and received in evidence and said exhibit is hereby referred to and by such reference thereto is made a part hereof.

WM. K. WHITE,
CHAS. M. FRYER,

Solicitors and Counsel for Defendant and Cross-Complainant Bunting Iron Works. [185]

[Title of Court and Cause.]

PETITION OF DEFENDANT AND CROSS-COMPLAINANT, BUNTING IRON WORKS, FOR ORDER ALLOWING APPEAL.

The defendant and cross-complainant herein, Bunting Iron Works, feeling itself aggrieved by the decree made and entered in the above-entitled suit on the 31st day of March, 1924, wherein and whereby it is ordered and decreed that United States letters patent No. 1,158,058, issued on October 26, 1918, and owned by said defendant and cross-complainant, Bunting Iron Works, had not been and is not infringed by the plaintiffs and cross-defendants or either of them, comes now by its solicitors and counsel and prays this Court for an order allowing the said defendant and cross-complainant to prosecute an appeal from the said decree to the Honorable United States Circuit Court of Appeals for the Ninth Circuit, under and according to

the laws of the United States in that behalf made and provided.

WM. K. WHITE,
CHAS. M. FRYER,

Solicitors and Counsel for Defendant and Cross-complainant, Bunting Iron Works.

[Endorsed]: Filed Apr. 12, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [186]

[Title of Court and Cause.]

ASSIGNMENT OF ERRORS OF DEFENDANT
AND CROSS-COMPLAINANT, BUNTING
IRON WORKS.

Now comes Bunting Iron Works, the defendant and cross-complainant herein, and specifies and assigns the following as the errors upon which it will rely upon its appeal to the United States Circuit Court of Appeals for the Ninth Circuit and from the final decree made and entered in the above-entitled cause by this Honorable Court on the 31st day of March, 1924, adjudging and decreeing that United States letters patent No. 1,158,058, issued on October 26, 1918, to American Standard Oil Burner Co. and owned by said defendant and cross-complainant, had not been and is not infringed by plaintiffs and cross-defendants herein or by either of them.

1. The above-entitled court, to wit, the United States District Court for the Southern Division of the Northern District of California, Third Division,

erred in adjudging and decreeing that United States letters patent No. 1,158,058, issued on October 26, 1918, and owned by said defendant and cross-complainant had not been and is not infringed by William R. Ray and W. S. Ray Manufacturing Co. (a corporation), plaintiffs and cross-defendants herein or by either of them, as alleged in defendant's cross-complaint herein.

2. Said Court erred in dismissing defendant's cross-complaint herein, wherein it sued on and charged infringement by plaintiffs and cross-defendants of said letters patent No. 1,158,058.

3. Said Court erred in not adjudging and decreeing that plaintiffs and cross-defendants had infringed claim 1 of said letters patent No. 1,158,058.

4. Said Court erred in not adjudging and decreeing that plaintiffs and cross-defendants had infringed claim 2 of said letters patent No. 1,158,058.
[187]

5. Said Court erred in not adjudging and decreeing that plaintiff and cross-defendant W. S. Ray Manufacturing Co. had infringed claim 1 of said letters patent No. 1,158,058.

6. Said Court erred in not adjudging and decreeing that plaintiff and cross-defendant W. S. Ray Manufacturing Co. had infringed claim 2 of said letters patent No. 1,158,058.

7. Said Court erred in not adjudging and decreeing that plaintiff and cross-defendant W. S. Ray Manufacturing Co. had infringed said letters patent No. 1,158,058.

8. Said Court erred in decreeing that defendant

and cross-complainant should not recover any costs in this suit.

In order that the foregoing assignment of errors may be and appear of record, the said defendant and cross-complainant presents the same to the Court and prays that such disposition may be made thereof as is in accordance with the laws of the United States.

WHEREFORE said defendant and cross-complainant prays that said decree be reversed and that said United States District Court in and for the Southern Division of the Northern District of California, Third Division, be directed to enter a decree in favor of defendant and cross-complainant and against the plaintiffs and cross-defendants William R. Ray and W. S. Ray Manufacturing Co. (a corporation), and each of them, in the usual form, adjudging and decreeing said United States letters patent No. 1,158,058 valid and infringed by said plaintiffs and cross-defendants and each of them as alleged in defendant's cross-complaint herein granting to defendant and cross-complainant all other relief prayed for in its said cross-complaint, and referring the cause to a Master in Chancery for an accounting of damages and profits.

All of which is respectfully submitted.

W. K. WHITE,
CHAS. M. FRYER,

Solicitors and Counsel for Defendant and Cross-complainant, Bunting Iron Works.

[Endorsed]: Filed Apr. 12, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.

[Title of Court and Cause.]

ORDER ALLOWING APPEAL OF DEFENDANT AND CROSS-COMPLAINANT, BUNTING IRON WORKS.

In the above-entitled case, the defendant and cross-complainant, Bunting Iron Works, having filed its petition for an order allowing an appeal, together with an assignment of errors,

Now, upon motion of William K. White, Esq., solicitor for defendant and cross-complainant, it is ordered that the said appeal be and the same is hereby allowed to said defendant and cross-complainant to the United States Circuit Court of Appeals for the Ninth Circuit, from the decree entered herein on the 31st day of March, 1924, wherein and whereby it is ordered and decreed that United States letters patent No. 1,158,058, issued on October 26, 1918, and owned by said defendant and cross-complainant, Bunting Iron Works, is not infringed by the plaintiffs and cross-defendants or either of them and that the amount of the cost bond of defendant and cross-complainant on said appeal shall be and is hereby fixed at the sum of Three Hundred Dollars (\$300.00).

It is further ordered that upon the giving of such cost bond a certified transcript of the record and proceedings herein be forthwith transmitted to said United States Circuit Court of Appeals.

BOURQUIN,
Judge.

Dated: April 12, 1924.

[Endorsed]: Filed Apr. 12, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [189]

In the United States District Court, in and for the Southern Division of the Northern District of California, Third Division.

EQUITY—No. 689.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),
Plaintiffs and Cross-defendants,
vs.

BUNTING IRON WORKS, a Corporation,
Defendant and Cross-complainant.

BOND ON APPEAL OF DEFENDANT AND
CROSS-COMPLAINANT BUNTING IRON
WORKS.

KNOW ALL MEN BY THESE PRESENTS: That Globe Indemnity Company, a corporation organized and existing under and by virtue of the laws of the State of New York and duly licensed to transact a suretyship business in the State of California, is held and firmly bound in the penal sum of Three Hundred Dollars (\$300.00), to be paid to William R. Ray and W. S. Ray Manufacturing Co. (a corporation), their successors or assigns, for which payment, well and truly to be made, the undersigned binds itself, its successors and assigns, firmly by these presents.

The condition of the foregoing bond is such, that
WHEREAS, the Bunting Iron Works (a corporation), defendant in the above-entitled suit, has taken an appeal to the United States Circuit Court of Appeals for the Ninth Circuit to reverse the decree made and entered on the 31st day of March, 1924, by the United States District Court in and for the Southern Division of the Northern District of California, Third Division, in the above-entitled suit.

NOW, THEREFORE, the condition of the foregoing obligation is such that if the said Bunting Iron Works shall prosecute its said appeal to effect and shall answer all damages and costs, if it [190] shall fail to make its plea good, then this obligation shall be void, otherwise to remain in full force and effect.

Dated at San Francisco, California, April 12th, 1924.

GLOBE INDEMNITY COMPANY,

[Corporate Seal]

By JOHN H. ROBERTSON,

Its Attorney-in-Fact.

Approved, April 16, 1924.

BOURQUIN,

Judge.

[Endorsed]: Filed April 16, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.

[191]

[Title of Court and Cause.]

PRAECIPE OF DEFENDANT AND CROSS-COMPLAINANT, BUNTING IRON WORKS, FOR TRANSCRIPT OF RECORD ON APPEAL OF SAID DEFENDANT AND CROSS-COMPLAINANT.

To the Clerk of the Above-entitled Court:

Please incorporate the following papers, documents and exhibits in the transcript of record on appeal in the appeal of defendant and cross-complainant, Bunting Iron Works, in the above-entitled cause:

1. Bill of complaint.
2. Answer and cross-complaint filed with said answer.
3. Answer of plaintiffs and cross-defendants, William R. Ray and W. S. Ray Manufacturing Co. (a corporation), to defendant's cross-complaint.
4. Opinion of District Judge Bourquin, dated March 27, 1924, and filed herein.
5. Decree dated and filed herein March 31, 1924.
6. Defendant and cross-complainant Bunting Iron Works' statement of the evidence under Equity Rule 75, on appeal of said defendant, and stipulation and order annexed thereto in re record on appeal.
7. Petition of defendant and cross-complainant, Bunting Iron Works, for order allowing appeal.
8. Order allowing appeal of defendant and cross-complainant, Bunting Iron Works.

9. Assignment of errors of defendant and cross-complainant, Bunting Iron Works.

10. Order dated and filed herein April 12, 1924, allowing withdrawal of original exhibits.

11. The following original exhibits offered and received in evidence at the trial of said cause:

- (a) Defendant's Exhibit "A"
- (b) Defendant's Exhibit "Z" [192]
- (c) Defendant's Exhibit "KK"
- (d) Plaintiff's Exhibit 6
- (e) Plaintiff's Exhibit 29

none of said exhibits to be copied into the transcript of record on this appeal but all of them to be transmitted to the United States Circuit Court of Appeals for the Ninth Circuit as part of said record, pursuant to the orders for such transmission on file herein.

12. Bond of defendant and cross-complainant, Bunting Iron Works, on appeal of said defendant and cross-complainant.

13. Citation on appeal of defendant and cross-complainant, Bunting Iron Works.

14. Praeceptum of defendant and cross-complainant, Bunting Iron Works, on appeal of said defendant.

WM. K. WHITE,
CHAS. M. FRYER,

Solicitors and Counsel for Defendant and Cross-complainant Bunting Iron Works.

[Endorsed]: Filed April 15, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [193]

[Title of Court and Cause.]

PRAECIPE OF DEFENDANT AND CROSS-
COMPLAINANT BUNTING IRON WORKS
FOR TRANSCRIPT ON APPEAL OF
PLAINTIFFS AND CROSS-DEFEND-
ANTS.

To the Clerk of the United States District Court:

Please incorporate the following papers and documents in the transcript of record on the appeal of plaintiffs and cross-defendants in the above-entitled cause:

1. Opinion of District Judge Bourquin, dated March 27, 1924, and filed herein.
2. Final Decree, dated and filed herein March 31, 1924.
3. Stipulation and order annexed to condensed statement of defendant and cross-complainant on file herein.

WM. K. WHITE,
CHAS. M. FRYER,

Solicitors and Counsel for Defendant and Cross-complainant.

[Endorsed]: Filed Apr. 15, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.

[194]

[Title of Court and Cause.]

ORDER ALLOWING WITHDRAWAL OF
ORIGINAL EXHIBITS FOR USE ON AP-
PEAL OF DEFENDANT AND CROSS-
COMPLAINANT, BUNTING IRON WORKS.

On motion for counsel for defendant and cross-complainant, Bunting Iron Works, and good cause appearing therefor, it is hereby

ORDERED that the original exhibits offered in evidence herein in respect to the issues raised by the cross-complaint and answer thereto filed herein, to wit, "Defendant's Exhibit "A," Defendant's Exhibit "Z" and Defendant's Exhibit "KK," may be withdrawn from the files of the above-entitled court and of the Clerk thereof and by said Clerk transmitted to the United States Circuit Court of Appeals for the Ninth Circuit as a part of the record on the appeal herein of defendant and cross-complainant, Bunting Iron Works; the said original exhibits to be returned to the files of this Court upon the determination of said appeal.

BOURQUIN,
Judge.

Dated: April 12, 1924.

[Endorsed]: Filed April 12, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.
[195]

STIPULATION IN RE RECORD ON APPEALS
HEREIN.

It is hereby stipulated and agreed that, in addition to the foregoing condensed statement of defendant and cross-complainant, the appeal herein of said defendant and cross-complainant may be heard on such other portions of the record, evidence and proofs herein as may be competent, relevant and material with respect to the issues raised by the cross-complaint and answer thereto on file herein; the defendant and cross-complainant reserving the objection that no other portion or portions of said record, evidence or proofs are competent, relevant or material in respect to said issues; it is further stipulated and agreed, subject to the approval of the Court, that, in order to save expense and avoid duplication of the record, that the transcript of evidence may be set out in the form of question and answer and that one record serve for both parties and that the expense of said appeal and cross-appeal be divided equally between the parties both in this court and in the Circuit Court of Appeals.

CHAS. E. TOWNSEND,
WM. A. LOFTUS,

Solicitors for Plaintiffs and Cross-defendants.

WM. K. WHITE,
CHAS. M. FRYER,

Solicitors for Defendants and Cross-complainants.

Dated: April 15th, 1924.

IT IS HEREBY ORDERED that the foregoing annexed statement of evidence and stipulation in the above-entitled suit be and the same is hereby approved.

BOURQUIN,
Judge.

[Endorsed]: Filed Apr. 16, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [196]

[Title of Court and Cause.]

CERTIFICATE OF CLERK U. S. DISTRICT
COURT TO RECORD ON APPEAL.

I, Walter B. Maling, Clerk of the District Court of the United States, in and for the Northern District of California, do hereby certify the foregoing one hundred ninety-six (196) pages, numbered from 1 to 196, pages, numbered from 1 to 196, inclusive, to be a full, true and correct copy of the record and proceedings in the above-entitled suit, as the same remains of record and on file in the office of the clerk of said court, and that the same constitutes the record on appeal to the United States Circuit Court of Appeals, for the Ninth Circuit.

I further certify that the cost of the foregoing transcript of record is \$88.50; that said amount was paid by the plaintiff and defendant and that the original citations issued in said suit are hereto annexed.

ing court for the Northern District of California, this 22d day of April, A. D. 1924.

BOURQUIN,

United States District Judge.

Receipt of a copy of the within citation on appeal admitted this 25th day of April, 1924.

WM. K. WHITE,

CHAS. M. FRYER,

Solicitors for Defendant-Appellee, Bunting Iron Works (a Corporation).

[Endorsed]: In Equity—No. 689. United States District Court for the Northern District of California. William R. Ray and W. S. Ray Manufacturing Co. (a Corporation), Appellants, vs. Bunting Iron Works (a Corporation), Appellee. Citation on Appeal. Filed Apr. 25, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [198]

UNITED STATES OF AMERICA,—ss.

CITATION (WILLIAM R. RAY AND W. S. RAY MANUFACTURING COMPANY).

The President of the United States, to William R. Ray and W. S. Ray Manufacturing Co., a Corporation, GREETING:

You are hereby cited and admonished to be and appear at a United States Circuit Court of Appeals for the Ninth Circuit, to be holden at the City of San Francisco, in the State of California, within thirty days from the date hereof, pursuant to an order allowing an appeal, of record in the Clerk's

Office of the United States District Court for the Northern District of California, wherein Bunting Iron Works, a corporation, is appellant, and you are appellees, to show cause, if any there be, why the decree rendered against the said appellant, as in the said order allowing appeal mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS the Honorable GEORGE M. BOURQUIN, United States District Judge for the District of Montana, designated to hold and holding this Court this 21st day of April, A. D. 1924.

BOURQUIN,

United States District Judge.

Receipt of a copy of the within Citation this 22d day of April, 1924, is hereby acknowledged.

CHAS. L. TOWNSEND,

WM. A. LOFTUS,

Solicitors and Counsel for William R. RAY and
W. S. Ray Manufacturing Co. (a Corporation),
Appellees.

[Endorsed]: No. 689—Eq. United States District Court for the Northern District of California. Bunting Iron Works, a Corporation, Appellant, vs. William R. Ray et al. Citation on Appeal. Filed Apr. 22, 1924. Walter B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [199]

[Endorsed]: No. 4256. United States Circuit Court of Appeals for the Ninth Circuit. William R. Ray and W. S. Ray Manufacturing Company,

a Corporation, Appellants and Cross-Appellees, vs. Bunting Iron Works, a Corporation, Appellee and Cross-Appellant. Transcript of Record. Upon Appeals from the Southern Division of the United States District Court for the Northern District of California, Third Division.

Filed May 20, 1924.

F. D. MONCKTON,

Clerk of the United States Circuit Court of Appeals
for the Ninth Circuit.

By Paul P. O'Brien,
Deputy Clerk.

In the United States Circuit Court of Appeals for
the Ninth Circuit.

No. 4256.

WILLIAM R. RAY and W. S. RAY MANUFACTURING CO. (a Corporation),

Appellants and Cross-Appellees,

vs.

BUNTING IRON WORKS (a Corporation),

Appellee and Cross-Appellant.

STIPULATION AND ORDER WAIVING
PRINTING OF DOCUMENTARY EXHIBITS.

It is hereby stipulated by the parties to the above-entitled cause, subject to the approval of the Court, that none of the documentary exhibits included in

the record on appeal in said cause be printed or reproduced in the printed record in said cause.

CHAS. E. TOWNSEND,

WM. A. LOFTUS,

Solicitors for Appellee and Cross-Appellant.

W. K. WHITE,

CHAS. M. FRYER,

Solicitors for Appellee and Cross-Appellees.

Dated: June 17, 1924.

Approved.

HUNT,

U. S. Circuit Judge.

[Endorsed]: No. 4256. In the United States Circuit Court of Appeals for the Ninth Circuit. William R. Ray and W. S. Ray Manufacturing Co. (a Corporation), Appellants and Cross-Appellees, vs. Bunting Iron Works (a Corporation), Appellee and Cross-Appellant. Stipulation and Order Waiving Printing of Documentary Exhibits. Dated May, 1924. Filed Jun. 20, 1924. F. D. Monckton, Clerk. By Paul P. O'Brien, Deputy Clerk.